Third International Scientific Conference on Economics and Management

EMAN 2019

www.eman-conference.org

CONFERENCE PROCEEDINGS

UNIVERZA NA PRIMORSKEM UNIVERSITÀ DEL LITORALE
FAKULTETA ZA MANAGEMENT FACOLTÀ DI MANAGEMENT 20 let
DOBA Business School
Association of Economists and Managers of the Balkans UdEkoM Balkan
FAKULTET ZA MENADŽMENT ZAJEČAR

3rd INTERNATIONAL SCIENTIFIC CONFERENCE
EMAN 2019

EMAN 2019 – Economics & Management: How to Cope With Disrupted Times

CONFERENCE PROCEEDINGS

Ljubljana, Slovenia
March 28, 2019

International Scientific Conference EMAN – Economics & Management: How to Cope with Disrupted Times
ISSN 2683-4510
Conference Proceedings (part of EMAN conference collection)

Published by:
1. *Association of Economists and Managers of the Balkans, Belgrade, Serbia;*
2. *Faculty of Management Koper – Koper, Slovenia;*
3. *DOBA Business School - Maribor, Slovenia;*
4. *Integrated Business Faculty - Skopje, Macedonia;*
5. *Faculty of Management - Zajecar, Serbia*

Printed by:
All in One Print Center, Belgrade

Belgrade, 2019

ISBN 978-86-80194-17-2

ISSN 2683-4510

DOI: https://doi.org/10.31410/EMAN.2019

CIP - Katalogizacija u publikaciji
Narodna biblioteka Srbije, Beograd

330.1(082)
005(082)
34(082)
62(082)
502(082)

INTERNATIONAL Scientific Conference EMAN Economics & Management: How to Cope With Disrupted Times (3 ; 2019 ; Ljubljana)

Economics & Management: How to Cope With Disrupted Times : conference proceedings / The 3rd International Scientific Conference EMAN 2019, Ljubljana, Slovenia March 28, 2019 ; [organized by] Association of Economists and Managers of the Balkans ... [et al.] ; [editor Vuk Bevanda]. - Belgrade : Association of Economists and Managers of the Balkans ; Koper : Faculty of Management ; Maribor : Doba Business School ; Skopje : Integrated Business Faculty ; Zaječar : Faculty of Management, 2019 (Beograd : All in One Print Center). - XX, 748 str. : graf. prikazi, tabele ; 30 cm

Radovi na više jezika. - Tiraž 100. - Napomene i bibliografske reference uz tekst. - Bibliografija uz svaki rad. - Abstracts.

ISBN 978-86-80194-17-2

a) Menadžment -- Zbornici b) Ekonomija -- Zbornici v) Pravo -- Zbornici g) Tehnologija -- Zbornici d) Životna sredina -- Zbornici

COBISS.SR-ID 281054988

Table of Contents

Index of Authors

PREFACE

Association of Economists and Managers of the Balkans headquartered in Belgrade – Serbia, Faculty of Management Koper – Koper, Slovenia; DOBA Business School - Maribor, Slovenia; Integrated Business Faculty - Skopje, Macedonia and Faculty of Management - Zajecar, Serbia organized Third International Scientific Conference on Economics and Management: How to Cope With Disrupted Times - EMAN 2019 in Ljubljana on March 28, 2019 at the Hotel M.

Third International Scientific Conference on Economics and Management - EMAN - aimed to establish and expand international contacts and co-operation across regions and countries. The main purpose of the conference was to provide scientists an encouraging and stimulating environment in which they may present results of their research to the scientific community and general public.

The conference theme was discussed in following sections:

1. Economics,
2. Management,
3. Law,
4. Tourism,
5. Environment,
6. Technology.

The aim of this year's conference has been achieved - bring together the academic community of the Balkans region and other countries and publication of their papers with the purpose of popularization of science and their personal and collective affirmation. The unique program combined presentation of the latest scientific developments in these areas, interactive discussions and other forms of interpersonal exchange of experiences.

The conference was opened by **Prof. dr Rasto Ovin**, Dean of the DOBA Business School – Maribor, Slovenia and a member of the Scientific Committee of the conference; **Uroš Mirčević**, President of the Association of Economists and Managers of the Balkans and **Prof. dr Tatjana Horvat** representative of the Faculty of Management Koper, University of Primorska, Slovenia.

Within publications from EMAN 2019 conference:

- **25 double peer reviewed papers** have been published in the *EMAN 2019 – Economics & Management: How to Cope with Disrupted Times - Selected Papers – The 3rd Conference on Economics and Management,*
- **87 double peer reviewed papers** have been published in the *EMAN 2019 Conference Proceedings – Economics & Management: How to Cope With Disrupted Times* and
- **63 abstracts** have been published in the *EMAN 2019 Book of Abstracts.*

EMAN 2019 publications have more than **1.000 pages**. Besides that, **57 papers** have been accepted for publication in the conference partner journals also, namely:

1. **Managing Global Transitions (MGT)** is a quarterly, scholarly journal published by the University of Primorska, Faculty of Management (Slovenia). Journal covers diverse aspects of transitions and welcomes research on change and innovation in increasingly digitalized and networked economic environments, from a societal, organizational, and technological perspective. MGT fosters the exchange of ideas, experience and knowledge among developed and developing countries with different cultural, organizational and technological traditions. The Journal is officially listed in EconLit, International Bibliography of the Social Sciences, Directory of Open Access Journals, Erih Plus, IBZ Online, EconPapers, Cabell's Directory of Publishing Opportunities, EBSCO and ProQuest.

2. **Management: Journal of Sustainable Business and Management Solutions in Emerging Economies** is a diverse journal with a wide range of management disciplines. It is published in three issues per year (May, September, and December). PDF of papers is freely available online. The University of Belgrade is publishing the Journal since 1996. It has the highest national rank (M24 – 4 points) and currently is indexed/ranked/abstracted in EBSCO, DOAJ, Google Scholar, MIT library, CEEOL, UTS library, Periodicos CAPES, National Library of Serbia Digital Repozitory, Serbian Citation Index and Ulrich Periodicals.

3. **Management** is an open access peer-reviewed international journal published by the Faculty of Management Koper, University Primorska (Slovenia) since 2005. It is indexed/listed in Erih Plus, Directory of Open Access Journals, EconPapers and EBSCO. The journal Management is intended for managers, researchers, students and scholars, who develop skills and put into practice knowledge on organisation management. The journal integrates practitioners', behavioural and legal aspects of management. It is dedicated to publishing articles on activities and issues within organisations, their structure and resources.

4. **The Facta Universitatis, Series: Economics and Organization (FU Econ Org)** is an open access peer-reviewed international journal published by the University of Niš (Republic of Serbia). FU Econ Org has been published since 1993. The journal has high national rank in Serbia (M51 – 3 points) and currently, it is being indexed in DOAJ, ERIH PLUS - European Reference Index for the Humanities and Social Sciences, Index Copernicus International, CEEOL, EconBiz, SCIndex (Serbian Citation Index), CiteFactor,

OAJI - Open Academic Journals Index, DRJI - Directory of Research Journals Indexing, JournalTOCs, EZB - Die Elektronische Zeitschriftenbibliothek, Google Scholar, BASE - Bielefeld Academic Search Engine, ROAD - Directory of Open Access scholarly Resources, SUNCAT and INFOBASE INDEX (India).

5. **Journal of Innovative Business and Management** is referred in international scientific journal bases DOAJ, EconPapers, ResearchGate and RePec. It has been published since 2009 and since then it has been attracting more and more interest among the readers, who predominantly come from academia and business practice.

6. **Journal of Sustainable Development (JSD)** is an international journal published by the Integrated Business Faculty – Skopje, Macedonia. JSD area includes three pillars of economic, social and environmental development issues. All these aspects are considered relevant for publishing in the JSD. The Journal is officially listed in the respected EBSCO database, CEEOL database, as well as the databases of Business Source Complete and Sustainability Reference Center. All articles published in the Journal are also indexed in these databases.

7. **Our Economy: Journal of Contemporary Issues in Economics and Business (JCIEB)** is an international open access, peer reviewed, and scientific journal, published continuously since 1954 by University of Maribor, Faculty of Economics and Business (Slovenia). At present, the journal is indexed/listed in EconLit, EBSCO, DOAJ, ProQuest, RePEc and numerous other databases.

8. **Balkans Journal of Emerging Trends in Social Sciences (Balkans JETSS)** - new scientific journal, published by the Association of Economists and Managers of the Balkans. Aims and scope are economics, management, law and tourism. After publication of first issues of the journal, Balkans JETSS will be submitted for indexation in all relevant scientific databases: SCOPUS, EBSCO, DOAJ, Google Scholar, etc.

Participation in the conference took **373 researchers with the paper** representing:

- 24 different countries,
- 93 different universities,
- 63 eminent faculties,
- 10 scientific institutes,
- 27 colleges,
- Various ministries, local governments, public and private enterprises, multinational companies, associations, etc.

1. Albania
2. Austria
3. Bosnia and Herzegovina
4. Bulgaria
5. Croatia
6. Czech Republic
7. Greece
8. Hungary
9. India
10. Iran
11. Italy
12. Montenegro
13. North Macedonia
14. Poland
15. Romania
16. Russia
17. Serbia
18. Slovakia
19. Spain
20. Sultanate of Oman
21. Taiwan
22. Turkey
23. UAE
24. United Kingdom

Participating Universities:

1. Aleksander Moisiu University of Durres, Albania
2. Alexander Dubček University in Trenčín, Slovakia
3. Alfa University, Novi Beograd, Serbia
4. Banat’s University of Agricultural Sciences and Veterinary Medicine “King Michael I of Romania”, Romania
5. Bucharest University of Economic Studies, Romania
6. Budapest Metropolitan University, Hungary
7. CAMPUS 02, University of Applied Sciences, Graz, Austria
8. Çankaya University, Ankara, Turkey
9. Comenius University in Bratislava, Slovakia
10. Cracow University of Economics, Poland
11. December 1918 University of Alba Iulia, Romania
12. EDUCONS University, Sremska Kamenica, Serbia
13. Epoka University, Tirana, Albania
14. Eszterházy Károly University, Hungary
15. European University of Tirana, Albania
16. European University, Brčko, Bosnia and Herzegovina
17. Hamdan Bin Mohammed Smart University (HBMSU), Dubai Academic City, UAE
18. I Shou University, Kaohsiung City, Taiwan
19. Independent University Banja Luka, Bosna and Hercegovina
20. International University of Sarajevo, Bosnia and Herzegovina
21. Istanbul University, Turkey
22. J. J. Strossmayer University of Osijek, Croatia
23. Jan Evangelista Purkyně University, Ústí nad Labem, Czech Republic
24. Jawaharlal Nehru University, New Delhi, India
25. Jean Monnet University, Casamassima (BA), Italy
26. Libertas International University, Zagreb, Croatia
27. Lucian Blaga University of Sibiu, Romania
28. Matej Bel University in Banská Bystrica, Slovakia

29. Mediterranean University Podgorica, Montenegro
30. Megatrend University, Belgrade, Serbia
31. Mendel University in Brno, Czech Republic
32. Metropolitan University, Belgrade, Serbia
33. National Research Tomsk State University, Tomskaya Oblast, Russia
34. National Technical University of Athens, Greece
35. New Bulgarian University, Sofia, Bulgaria
36. Nişantaşı University, Turkey
37. Pázmány Péter Catholic University, Budapest, Hungary
38. Politehnica University of Bucharest, Romania
39. Politehnica University Timişoara, Romania
40. Selcuk University, Konya, Turkey
41. Slobomir P University, Bijeljina, Bosnia and Herzegovina
42. Slovak University of Agriculture in Nitra, Slovakia
43. South East European University, Tetovo, North Macedonia
44. Ss. Cyril and Methodius University, Skopje, North Macedonia
45. Szent Istvan University, Godollo, Hungary
46. Tehran University of Medical Sciences (TUMS), Tehran, Iran
47. Tomas Bata University in Zlin, Czech Republic
48. Transport University Sofia, Bulgaria
49. Transylvania University of Brasov, Romania
50. Union - Nikola Tesla University, Belgrade, Serbia
51. University "Vitez", Travnik, Bosnia and Herzegovina
52. University „Giustino Fortunato", Benevento, Italy
53. University „Kadri Zeka", Gjilan
54. University „Stefan cel Mare", Suceava, Romania
55. University American College, Skopje, North Macedonia
56. University Carlo Cattaneo - LIUC, Italy
57. University for Business and Technology, Pristina
58. University of Applied Sciences Kufstein, Austria
59. University of Banja Luka, Bosnia & Herzegovina
60. University of Belgrade, Serbia
61. University of Brescia, Italy
62. University of Bucharest, Romania
63. University of Business Studies Banja Luka, Bosnia and Herzegovina
64. University of Donja Gorica, Montenegro
65. University of Economics in Bratislava, Slovakia
66. University of Economics, Prague, Czech Republic
67. University of Economics, Varna, Bulgaria
68. University of Granada, Melilla, Spain
69. University of Jaén, Spain
70. University of Kent, Canterbury, United Kingdom
71. University of Kragujevac, Serbia
72. University of Lancaster, England
73. University of Maribor, Slovenia
74. University of Modern Sciences CKM, Mostar, Bosnia and Herzegovina
75. University of National and World Economy, Bulgaria
76. University of New York, Tirana, Albania
77. University of Niš, Serbia

78. University of Novi Sad, Serbia
79. University of Primorska, Slovenia
80. University of Pristina, Kosovska Mitrovica
81. University of Rijeka, Croatia
82. University of Sannio, Benevento, Italy
83. University of Split, Croatia
84. University of Stettin, Szczecin, Poland
85. University of Tetovo, North Macedonia
86. University of Tirana, Albania
87. University of Zagreb, Croatia
88. University of Žilina, Slovak Republic
89. University St. Goce Delcev - Stip, North Macedonia
90. University St. Kliment Ohridski, Bitola, North Macedonia
91. Ural Federal University, named after B.N. Yeltzin, Ekaterinburg, Russian Federation
92. Wroclaw University of Economics, Poland
93. Zagreb University of Applied Sciences, Zagreb, Croatia

Participating Faculties:

1. Business Faculty, Sofia, Bulgaria,
2. Faculty for Business Management, Bar, Montenegro
3. Faculty of Agriculture, Banja Luka, Bosnia & Herzegovina
4. Faculty of Business and Economics, Brno, Czech Republic
5. Faculty of Business and Law, Mladenovac - Belgrade, Serbia
6. Faculty of Business Economy and Entrepreneurship, Belgrade, Serbia
7. Faculty of Business Studies, Belgrade, Serbia
8. Faculty of Economics and Business, Maribor, Slovenia
9. Faculty of Economics and Business, Podgorica, Montenegro
10. Faculty of Economics and Business, Rijeka, Croatia
11. Faculty of Economics and Business, Zagreb, Croatia
12. Faculty of Economics and Management, Nitra, Slovakia
13. Faculty of Economics and Social Sciences, Eger, Hungary
14. Faculty of Economics and Social Sciences, Gödöllő, Hungary
15. Faculty of Economics, Administrative and Social Sciences, Istanbul, Turkey
16. Faculty of Economics, Banská Bystrica, Slovakia
17. Faculty of Economics, Business and Tourism, Split, Croatia
18. Faculty of Economics, Istanbul, Turkey
19. Faculty of Economics, Kragujevac, Serbia
20. Faculty of Economics, Rijeka, Croatia
21. Faculty of Economics, Sarajevo, Bosnia and Herzegovina
22. Faculty of Economics, Skopje, North Macedonia
23. Faculty of economics, Stip, North Macedonia
24. Faculty of Economics, Tirana, Albania
25. Faculty of economics, Pristina, Kosovska Mitrovica
26. Faculty of Economy, Belgrade, Serbia
27. Faculty of Engineering Hunedoara, Romania
28. Faculty of Economics, Niš, Serbia
29. Faculty of Economics, Osijek, Croatia
30. Faculty of Finance, Belgrade, Serbia

31. Faculty of Geography, Belgrade, Serbia
32. Faculty of Information Studies, Novo Mesto, Slovenia
33. Faculty of International Relations, Prague, Czech Republic
34. Faculty of Law, Belgrade, Serbia
35. Faculty of Law, Bratislava, Slovakia
36. Faculty of Law, Konya, Turkey
37. Faculty of Law, Travnik, Bosnia and Herzegovina
38. Faculty of Law, Zagreb, Croatia
39. Faculty of Management and Economics, Zlin, Czech Republic
40. Faculty of Management Science and Informatics, Žilina, Slovak Republic
41. Faculty of Management, Bratislava, Slovakia
42. Faculty of Management, Koper, Slovenia
43. Faculty of Management, Sremski Karlovci, Serbia
44. Faculty of Management, Zaječar, Serbia
45. Faculty of Mechanical Engineering, Mechatronics and Management, Suceava, Romania
46. Faculty of Mining, Geology and Petroleum Engineering, Zagreb, Croatia
47. Faculty of Organization and Informatics, Varaždin, Croatia
48. Faculty of Organizational Sciences, Kranj, Slovenia
49. Faculty of Philosophy, Niš, Serbia
50. Faculty of Political Sciences, Belgrade, Serbia
51. Faculty of Science and Mathematics, Niš, Serbia
52. Faculty of Security Engineering, Žilina, Slovakia
53. Faculty of Security Studies, Banja Luka, Republic of Srpska
54. Faculty of Social and Economic Relations, Trenčín, Slovakia
55. Faculty of Social and Economic studies, Ústí nad Labem, Czech Republic
56. Faculty of Sociology and Communication, Brasov City, Romania
57. Faculty of Technical Science, Novi Sad, Serbia
58. Faculty of Tourism and Hospitality Management, Opatija, Croatia
59. Faculty of Tourism Studies - Turistica, Portorož, Slovenia
60. Faculty of Tourism, Tourism Guidance, Konya, Turkey
61. FEFA Faculty, Belgrade, Serbia
62. Integrated Business Faculty, North Macedonia
63. International Relations Faculty, Bratislava, Slovak Republic

Participating Institutes:

1. European Polytechnic Institute, Kunovice, Czech Republic
2. Geographical Institute “Jovan Cvijić” SASA, Serbia
3. Institute for Educational Research, Belgrade, Serbia
4. Institute for Entrepreneurship and Small Business Management, Maribor, Slovenia
5. Institute of Economics – Skopje, North Macedonia
6. Institute of Economics, Eger, Hungary
7. Institute of European Law, Bratislava, Slovakia
8. Institute of Management Design & Competitive Strategies, Ekaterinburg, Russian Federation
9. Institute of Technology and Business in České Budějovice, Czech Republic
10. Scientific Tobacco Institute - Prilep, University St.Kliment Ohridski, Bitola, North Macedonia

Colleges:

1. AAB College, Pristina
2. API Academy, Tuzla, Bosnia and Herzegovina
3. Belgrade Business Academy for Applied Studies, Belgrade, Serbia
4. Budapest Business School, Hungary
5. Business School of Vocational Studies, Novi Sad, Serbia
6. College of Applied Sciences „Lavoslav Ružička“, Vukovar, Croatia
7. College of Journalism and Communication, University of Bucharest, Romania
8. College of Management and Design Aspira, Split, Croatia
9. College of Polytechnics Jihlava, Czechia
10. DOBA Business School Maribor, Slovenia
11. Kent Business School, Canterbury, United Kingdom
12. Management School, Lancaster, England
13. Modern College of Business and Science, Muscat, Sultanate of Oman
14. Police Academy of the Czech Republic, Prague
15. Polytechnic Nikola Tesla, Gospić, Croatia
16. Polytechnic of Požega, Croatia
17. Polytechnic of Rijeka, Croatia
18. Riinvest College, Pristina
19. School for Advanced Social Studies, Nova Gorica, Slovenia
20. School of Business and Economics, Szczecin, Poland
21. School of Economics Ljubljana, Slovenia
22. School of Economics, Vocational College Celje, Slovenia
23. School of Management and Business Administration Sciences, Szent Istvan University, Hungary
24. SGH Warsaw School of Economics, Warsaw, Poland
25. Tsenov Academy of Economics, Svishtov, Bulgaria
26. Valjevo Business School of Applied Studies, Valjevo, Serbia
27. Zagreb School of Economics and Management, Zagreb, Croatia

Other Participating Institutions:

1. Association of Economists and Managers of the Balkans, Belgrade, Serbia
2. Croatian Chamber of Economy, Croatia
3. Data status, Belgrade, Serbia
4. Environmental Protection and Energy Efficiency Fund, Zagreb, Croatia
5. Innovation Center, University of Niš, Serbia
6. Komercijalna banka AD Skopje, North Macedonia
7. KPMG, Zagreb, Croatia
8. LogiMan, s.r.o., Prague, Czech Republic
9. Ministry of Education, Science and Technological Development, Belgrade, Serbia
10. Ministry of Interior, Belgrade, Serbia
11. MRR d.o.o., Šempas, Slovenia
12. Oaza, d.o.o., Croatia
13. Office of the Mayor, City of Zagreb, Croatia
14. ROBFLEX - Laboratory for research on advanced processing technologies with robots and flexible systems, Suceava, Romania
15. Selk d.d. Kutina, Croatia

USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN HOTELS

Tugay Arat[1]

DOI: https://doi.org/10.31410/EMAN.2019.1

Abstract: *Development in information and communication technologies have caused great changes in the tourism sector. This development has increased competition in the tourism sector and has taken it out of the regional dimension, and brought it into a global competitive environment. Information and communication technologies enable businesses to be more effective and productive, and to improve quality at a lower cost.*

Information and communication technologies provide competitive advantage to tourism enterprises in introducing, distributing and bringing tourist products to the market. Tourism companies need to follow innovations to be one step ahead of their competitors and benefit from information and communication technologies as much as they can. Businesses operating in the tourism sector should carefully use the innovations and advantages provided by information technology. In the globalizing world, the increase in tourism demand due to the correct and effective use of information technology is very important for enterprises. This study aims to demonstrate the use of information technologies in the hotels of Konya which is one of the most important centers of religious tourism in Turkey.

Keywords: *Information, Communication Technologies, Tourism.*

1. INTRODUCTION

Over the past century, development in the world have gained tremendous pace and have undergone major changes. The industrial sector, which is regarded as the basis of development, has left its place to information along with this changing process (Turunç, 2006:1). The easiness of access to information and resources from the early 1990s with the developments in technology and the Internet has greatly reduced the effectiveness of traditional marketing (Özturan and Roney, 2004: 259). Information technology greatly affects our life in various ways as well as our business life (Çalis, 2014: 94). The Internet, which is among the indispensables of human life, is a result of the rapid development of information and communication technologies (Karataş and Babur, 2013: 23). The use of information technologies is also very important in the tourism sector. As far as the benefits of technology are concerned, information technology practices are known to reduce costs, improve productivity and improve service quality (Alford and Clarke, 2009: 580). Thanks to information technology, it is possible to monitor innovations and reduce the cost of transactions. As a result of the development of computer and communication technologies, the speed of communication has increased with globalization and the company can work comfortably anywhere in the world. The more information technology is utilized in the tourism and travel sectors, the easier it is to be ahead of the competition and to be among the preferred ones (Ay, 2007: 119). New information technologies are interested in the efficiency of travel companies particularly, as well as helping businesses to increase their competitiveness and to make their marketing activities more effective. It is extremely unlikely to survive for the businesses that cannot keep up with today's emerging information technologies (Yüksek, 2013: 54).

[1] Selcuk University, Faculty of Tourism, Tourism Guidance, Turkey

2. INFORMATION AND COMMUNICATION TECHNOLOGIES IN TOURISM

The development of information technology is causing change both in the economy and in businesses. In the microeconomic level, information technologies influence strategically and functionally the enterprises and make them recompense, while determining competition in the global market, providing the development and prosperity of the regions at the macroeconomic level. Thanks to information technology, new business locations can be established, and existing business locations can be renewed and recruited to competition. Operators' managers and employees can easily communicate with each other (Buhalis, 1998: 412).

The efficiency of the tourism sector depends on communication and information technology. Information technologies have a huge impact on businesses in preparing and implementing marketing tactics, and also, they can create new working opportunities by using the information (Benli and Kızgın, 2002).

Factors that help tourism operators to offer new and flexible competitive services are technological innovations such as electronic ticketing and the use of websites for sales (Pirnar, 2005: 29). Today, the use of information technology in the tourism sector has become compulsory. The self-regulated businesses can advertise with their web sites and communicate with their customers easily and cheaply. In this way they can save time and money. Consumers can make their air ticket reservation, hotel reservation, car rental, etc. thanks to these web sites from the internet whenever and wherever they want (Şimşek, 2005: 1).
According to Sarı and Kozak, the benefits of the internet in regional tourism competition can be examined under three headings:

1) Benefits to businesses: Possibility of convincing customers with easy and continuous information, to use the speed of computer and information networks, to do a lot of business in a short time, to reduce bureaucracy with electronic money and brochures, equal access to information, low cost promotion and marketing, cheaper internal information sharing, developing faster cooperation strategies, faster and less costly communication with customers.
2) Benefits to consumers: Making individual reservations and purchasing directly, getting detailed information, reducing dependence on intermediaries to obtain information, making use of personalized products, alternative comparison.
3) Benefits to tourism areas: The possibility of virtual collaboration by establishing a virtual reservation network at the regional level, the possibility of reaching millions of potential customers by using the Internet, the possibility of differentiation through multimedia applications, the possibility of equal access to all regions, the easy acquisition of regional customer profile, the promotion of zone at low cost on global level, and regional and inter-regional communication opportunities (Sarı and Kozak, 2005: 256).

Tourism enterprises operating in the tourism sector should be able to compete by constantly improving their performances in order to survive (Turunc, 2006: 2). For this reason, the hotels benefit from the Accommodation Management System. Accommodation Management System manages subsystems such as reservation, sales marketing, pre-payment, telephone, room service, door lock, accounting and inventory control through computers (Emeksiz, 2000: 34). Technological development in accommodation businesses focuses on two areas. These are management's activities and customer service. Both of them aim to increase productivity. Management activities are generally management information systems, decision support systems, revenue and database management (Zhao, 1998:

288). These applications can improve management decisions. Technology is also applied in the field of customer service. Examples include: automatic registration, exit procedures, security in the hotel, room climate, electronic consultation, intra-hotel communication applications can be shown. The use of technology in smart hotel rooms is very broad and satisfying. For example, it plays an important role in communication of international tourists with the outside world (Öztürk, 1996: 111).

3. RESEARCH ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE HOTELS

3.1. Method

This study aims to examine the use of information communication technologies by Konya hotel companies. It is descriptive and exploratory, and a survey technique is used for data collection. Expert opinion was received for the validity of the questionnaire. Pilot application is done. The reliability test was performed and the Cronbach Alpha was found to be 0.82. The Convenience Sampling Method was used in the sample. With the face-to-face survey technique, data was collected from 85 hotel managers and tried to measure their attitudes towards technology use. The questionnaire used in the research was taken from Mehmet Kaşlı's Masters graduate thesis. The research was conducted in October 2018.

3.2. Findings

The reliability of the questionnaire used in the research was analyzed and the Cronbach Alpha value was found to be 0.73. 85 hotel managers have participated in the research for star and starless hotel status. Among the hotel types there are international chain, national chain and independent company hotels. All of the hotels have a website. The hotels receive their bookings through their own site or travel agency.

Table 1 shows the priorities of the hotel managers participating in the survey as business. According to this, the priorities of the hotel managers are „to be recognized in the country", „to increase the market share of the business", „to increase the usage of the information technology to provide communication with the external environment of the business „ and „to increase the profitability of the business". Hotel managers are also thinking about investing in information technology and contributing to recognition, communication, profitability and increasing market share.

Table 1. The Priorities of Businesses

	n	%
To be recognized in the country	64	74,4
To increase the usage of the information technology to provide communication with the external environment of the business	62	72,1
To increase the profitability of the business	61	70,9
To improve the productivity of employees	34	39,5
To increase the market share of the business	63	73,3
To increase occupancy rates	41	47,7
Train employees to adapt to changing conditions	37	43,0
Improve service quality	44	51,2
To increase service diversity	39	45,3
To be recognized abroad	51	59,3

The answers given by the owners to the question of why they invested in information technology are shown in Table 2.

Table 2. The Reason Why They Are Investing in Information Technologies

	n	**%**
Increase sales revenue	59	68,6
Reduce costs	56	65,1
Prevent labor and time loss	48	55,8
Communicate better with intermediaries	26	30,2
Stay competitive	33	38,4
Facilitate service provision	29	33,7
Communicate better with suppliers	38	44,2
Opening to new markets	44	51,2

Hotel managers participating in the research are primarily investing in information technology in order to „increase sales revenue", then „reduce costs", „prevent labor and time loss" and „communicate better with suppliers". Hotel managers are investing in information technology to increase sales, reduce costs, prevent labor and time loss, and stay competitive.

Table 3. Perception in Information and Communication Technologies

	Mean	**Standard Deviation**
1) Internet helps to provide information from competitors and other businesses.	**4,5882**	,54103
2) Internet provides personal service to the target groups.	**4,6706**	,47279
3) Internet marketing is a separate work area.	4,0235	,78644
4) Internet is suitable for last minute purchases.	4,1765	1,11458
5) In order for the Internet to be effective in terms of promotion, it must be integrated with other communication tools (radio, TV, etc.)	3,8471	,74811
6) The Internet has security issues within the current technology.	3,3647	,99818
7) Internet facilitates the distribution of products and services.	4,0941	,36591
8) The use of the Internet ensures that the economic losses arising from the cancellation of the reservation are compensated in due time.	4,4353	,66273
9) The use of the internet in promotional and sales development is directed to individual consumers.	2,4706	,79565
10) The hotel website is difficult to find in the mixed environment of the internet.	2,3529	,64928
11) The presence of an impressive and functional web page gives the image that the business is in the technological direction.	**4,5176**	,85373
12) Information technology and internet usage reduce booking, promotion and sales costs.	**4,4471**	,62689
13) Information technology used in business has a direct impact on staff and business productivity.	4,1412	,95310
14) It is imperative that information technology is used at the accommodation businesses/ travel agencies.	4,3412	,64647
15) Hardware and software costs of computerized reservation systems are high.	3,3765	,87255
16) An agent that is not included in the computerized reservation system is weak in marketing and sales.	4,2824	,76550
17) Preparing a web page does not provide a significant contribution to creating a demand.	1,5294	,66526

18) Web site, installation and publishing costs are high practices.	2,3529	,66737
19) The use of internet and information technology is a must when marketing touristic products to foreign countries.	4,0824	,75926
20) Information technology and the internet provide low cost, fast and interactive communication.	**4,4235**	,62443
21) The use of information technology and the internet allows to develop relationships with intermediary institutions and clients.	4,0471	,59574
22) The use of information technology reduces the booking costs in the reservation.	4,2588	,75833
23) One of the important factors preventing the development of tourism in our region is due to lack of promotion.	3,4118	1,39125

The opinions of the hotel managers regarding the judgments on the use of information technology are shown in Table 3. According to this, the highest average is „Internet helps to provide information from competitors and other businesses". Secondly, the phrase „Internet provides personal services to the target groups". Thirdly, there is a judgment that „the presence of an impressive and functional web page gives the impression that the business is in the technological direction". Fourth is „Information technology and internet usage reduce booking, promotion and sales costs". According to these averages, hotel managers in Konya saw the importance of providing the information provision function of the internet to provide personal service. The use of information and communication technologies has a high attitude score in terms of reducing costs. They also think that they need a good web page. Moving from these averages, hotel managers are well aware of the functions of technology.

3. RESULTS

Tourism, one of the sectors most influenced by information technology, has been the biggest supporter of businesses seeking to gain competitive advantage. Unlike durable consumer goods, tourism services are not available before to examine. That is why the information provided by businesses through information and communication technologies is used to generate consumer opinions.

According to the results of the research; Hotel managers are also thinking about contributing to recognition, communication, profitability and increasing market share by investing in information technology. Hotel managers participating in the research are investing in information technology in order to „increase sales revenue", „reduce costs", „prevent labor and time loss" and „communicate better with suppliers". Hotel managers are investing in information technology to increase sales, reduce costs, prevent labor and time loss, and stay competitive. Hotel managers think that an impressive and functional web page should be eligible. Managers believe that the used technologies will reduce the cost of booking, promoting and selling. Hotel managers think that information and communication technologies will provide low cost, fast and interactive communication.

In today's world of globalization, the importance of information and communication technologies is increasing. It is a necessity for tourism companies to pay more attention to advertising, marketing, new advertising techniques, especially made via internet and social media, than other enterprises. The ability of tourism businesses to compete in the global market majorly depends on their ability to adapt the new developments. For this reason, the hotel should closely monitor and apply changes in technology.

REFERENCES

[1] Ay Lütfi (2007). Bilgi Teknolojisindeki Gelismelerin Seyahat Acentalarina Yansimalari; Online Seyahat Acentaciligi, S.Ü. İİBF Sosyal ve Ekonomik Arastirmalar Dergisi, 117-136.
[2] Emeksiz Murat (2000). Otel Isletmelerinde Icsel ve Dissal Bilgi Sistemleri: Bes Yildizli Uluslararasi Bir Zincir Otelin Dissal Bilgi Sistemleri Ile Iletisiminin Incelenmesi, Anatolia Turizm Arastirmalari Dergisi, Yil:11.
[3] Özturk Sevgi Ayşe (1996). Hizmet isletmelerinde En Onemli Rekabet Unsuru: Kalite, Standart Ekonomik ve Teknik Dergi, Yil: 35, Sayi: 411.
[4] Sarı Yaşar ve Kozak Metin (2005). Turizm Pazarlamasina Internetin Etkisi: Destinasyon Web Siteleri Icin Bir Model Onerisi, Akdeniz I.I.B.F. Dergisi, 248-271.
[5] Sarı Yaşar ve Kozak Metin (2005). Turizm Isletmelerinde Dogrudan Pazarlama Cabalari Kapsaminda Bilgi Teknolojilerinin Kullanimi, Iktisadi ve Idari Bilimler Dergisi, Cilt: Sayi: 1: 359-383.
[6] Şimşek Güntekin (2005). Kusadasi'nda Faaliyet Gosteren A Grubu Seyahat Acentalarinin Internetten Yararlanma Derecelerinin Degerlendirilmesi, Akademik Bilişim.
[7] Pirnar İge (2005). Turizm Endustrisinde E-Ticaret, Ekonomik ve Sosyal Arastirmalar Dergisi Güz, s.1.
[8] Turunç Ömer (2006). Bilgi Teknolojileri Kullaniminin Isletmelerin Orgutsel Performansina Etkisi Hizmet Sektorunde Bir Arastirma, Yayinlanmamis Doktora Tezi.
[9] Zhao J.L. (1998). Globalizations, Multinationals and Corporate Strategies, Strategic Management in the Hospitality Industry, John Wiley and Sons Inc.
[10] Benli Tahir ve Kızgın Yıldıray (2002). Konaklama Isletmelerinde Bilgi Teknolojisi Kullaniminin Onemi Uzerine Bir Alan Calismasi: Mugla Ili Ornegi, Mevzuat Dergisi, Sayi: 52.
[11] Buhalis Dimitrios (1998). Strategic use of information technologies in the tourism industry, Tourism Management, Vol. 19, No. 5, 409-421.
[12] Alford Philip and Clarke Steve (2009). Information technology and tourism a theoretical critique, Technovation 29, 580–587.
[13] Çalış Yıldırım Ercan, Keleş Emrah, Engin Ahmet (2014). Hilenin Ortaya Cikartilmasinda Bilgi Teknolojilerinin Onemi ve Bir Uygulama, Muhasebe ve Finansman Dergisi, 93-108.
[14] Karataş Muhammet ve Babür Serap (2013). Gelisen Dunya'da Turizm Sektorunun Yeri, Sosyal ve Ekonomik Arastirmalar Dergisi, 15 (25): 15-24.
[15] Özturan Meltem ve Roney Sevgin Akış (2004). Internet use among travel agencies in Turkey: Exploratory study, Tourism Management 25, 259-266.
[16] Yüksek Gökçe (2013). Bilgi Teknolojilerinin Gelisimi, Seyahat Isletmeleri ve Kuresel Dagitim Sistemi Ornegi, Journal of Internet Applications & Management/Internet Uygulamalari ve Yonetimi Dergisi 4.1.

LEADERSHIP SKILLS OF HOSPITALITY MANAGERS

Réka Somlai[1]

DOI: https://doi.org/10.31410/EMAN.2019.7

Abstract: *The research is inspired to study personal skills of Spanish and Hungarian hospitality professionals in order to compare their actual leadership skills with their belief of the skills they possess. In this research, a complex competency test, ProfileXT® is applied in order to receive reliable data of the participants' profiles. The test analyses the complete personality and gives reports regarding cognitive capacity and strategies of thinking, behavioral traits, and fields of interests. Participants' profiles include information about skills, what determines the effective behavior of a leader. The test among other information, examines communication skills, conflict resolution style, energy level, sociability, manageability, decisiveness, independence and objective judgement. The results are based on the competency profiles and a questionnaire which includes questions about the above-mentioned skills and participants indicate how successfully apply them at their job from their point of view. The Spanish and Hungarian manager profile differs in various aspects. Spanish respondents tend to follow fewer rules and require more independency. Hungarians are rather compromise in conflicts; Spaniards are less cooperative and more dominant. Spanish managers are more intuitive and emotional driven, while Hungarians are being more realistic. Hungarians are able to make more stable decisions, but at the slower pace than Spaniards. Comparing the profiles and the participant's beliefs about their abilities, both groups gave higher scores for themselves than their profiles results. The tendency is even more significant at the Spanish sample. These results can be a base of developmental trainings or coaching sessions for each group. Furthermore, soft skills are very important in leadership, therefore developing them could be a focus point even before a leader gets promoted. These findings and other professional results suggest that skill development should start even at university and collage levels, than should also continue during each professional's career path.*

Keywords: *leadership skills, inter- and intrapersonal skills, hospitality managers, self-awareness*

1. INTRODUCTION

The tourism industry is one of the sectors where changes and constant development is essential. Therefore, hospitality managers need some special leadership, inter- and intrapersonal skills to be able to face the challenges and make the accommodations successful in this competitive environment. Besides the skills, one of the most important ability is self-awareness. Leaders with high self-awareness are able to determine their strengths and weaknesses which will make them more successful in people management and leadership. In this study the main focus is on inter- and intrapersonal skills of hospitality managers and the level of their self-awareness.

2. THEORITICAL BACKGROUND

Leadership skills are one of the most researched topics of management and hospitality management. Many studies' aim is to investigate the most important skills what make a manager successful and try to determine what a leader needs to fit the position. One of the earliest and significant studies determine two main categories, these are the interpersonal and leadership

[1] Szent István Egyetem, Gödöllő, Práter Károly u. 1. Hungary.

categories. Within these, there are several skills, competencies and traits what a hospitality manager has to possess or learn. The interpersonal category includes the followings: manages guest problems with care, understanding and sensitivity. Communicates effectively written and orally. The leadership category contains these elements: maintains professional standards, demonstrates professional appearance, develops positive customer relations, and achieves positive working relations with employees [1]. Other early studies also determined some important skills what will make a leader effective. These are assertiveness, high energy level, sociability, emotional stability, conscientiousness, agreeableness [2]. However, determine these skills are not only important in the meaning of effectiveness. They also can be a base of the decision making of the selection of managers. According to other studies, the first step is to study the skills and personality traits of effective leaders. The second step is related to the hiring process, the candidate's skills and traits need to be measured, this way the right person can be selected for the position [3]. In another publication from the later studies, a management competency framework was developed by Sandwith in 1993. His findings influenced the researches and case studies in the following years. The framework identifies five domains, what incorporates all skills and competencies a manager needs to possess. These are the Conceptual/Creative Domain, Leadership Domain, Interpersonal Domain, Administrative Domain, and Technical Domain [4]. During the early 2000's, 10 essential skills were uncovered for hospitality managers: identify and solve managerial problems, demonstrate leadership abilities, control costs effectively, develop positive customer relationships, adapt the organization to meet customer needs, train and coach employees, manage crisis situations, solve customer problems, develop positive employee relations, effective communication skills [5]. Recent studies also aimed to determine the characteristics of the hospitality managers. Most of them examined categories like psychological characteristics, personality, social characteristics, skills for establishing good interpersonal relations, intelligence and ability and characteristics related to work relations. In a Macedonian study more than 200 hospitality professionals participated in the determination of the leadership characteristics and necessary skills of a contemporary manager in tourism and hospitality. According to the participant's opinion, these skills and competencies are energy, mobility, self-confidence, originality and creativity, communication skills and ability to set and track goals [6]. This study also states that possessing these skills, managers will be more self-confident and they will appear more secure as a manager.

Reviewing the literature of the managerial skills, it can be argued that over the years, the management style is also changing from a more controlled style to a style where leadership is more important than pure professional knowledge [7].

Category	Personal Competencies (Self)	Social Competencies (Other)
Recognition	**Self-Awareness** (it includes three sub-competencies) • Emotional self-awareness • Accurate self-assessment • Self-confidence	**Social Awareness** (it includes three sub-competencies) • Empathy • Service orientation • Organizational awareness
Regulation	**Self-Management** (it includes six sub-competencies) • Emotional self-control • Trustworthiness • Conscientiousness • Adaptability • Achievement drive • Initiative	**Relationship Management** (it includes eight sub-competencies) • Developing others • Influence • Communication • Conflict management • Visionary leadership • Catalyzing change • Building bonds •Teamwork and collaboration

Figure 1: Goleman's Model of Emotional Intelligence

Emotional intelligence is an important and recently well studied field. It is such a complex concept, therefore its components all represent the managerial skillset. One of the several models, the Goleman model was designed for the workplace and includes skills what are essential for a person to be efficient and successful at the role (Figure 1) [8].

One of the components of the model is self-awareness which also includes sub-competencies. These three competencies are also keys for managers to be able to succeed with their employees and with their customers as well. In the hospitality and tourism managerial level, skills are always multifunctional in the sense of using them differently in various situations. Having the skills for a hospitality manager is not enough; they also need to be flexible and use their skills considering the situation. This means, self-awareness and flexibility are two very important skills what make a manager successful in both levels, with their employees and with their customers [9]. There are several studies of emotional intelligence, however, there are less regarding the hospitality industry. An American study researched emotional intelligence level of hospitality managers and found no significant differences between hospitality and non-hospitality participants. However, those, who have participated at leadership courses, the average emotional intelligence scores were higher, than those who had no similar training [10].

The complexity of Emotional Intelligence shows that communication is also part of Goleman's model. Communication is also a fundamental skill in the hospitality industry. In another study, communication was ranked as the most important individual leadership skill in the industry. The study also indicates that the method of communication also depends on the audience and the content of the message. The other finding of this study was the importance of different skill categories. The ranking regarding hospitality is the following: business skills, cognitive skills, interpersonal skills, personal values, and strategic skills [11].

Hungarian hospitality managers' skills were studied with different skill and competency tests in a recent research. It was found that most managers tend to choose assertive communication style, the most developed emotional intelligence components are self-control and empathy, and most of them follow accommodating conflict resolution style. The study also implicates that their assertiveness and some emotional intelligence component scores were quite high [12].

A Spanish study implicates that there are very few researches about the skills of Spanish hospitality managers; however, it suggests that the development of social skills are the most requested skills in the tourism industry [13].

3. MATERIALS AND METHOD

3.1. Data collection and sample

Participants are Hungarian and Spanish hospitality managers from different types of accommodations. In the Hungarian group there are 7 women, 3 men between 36 and 50 years. Five of them work in a hostel, the other five in a 4-5-star hotel. In the Spanish group there are 6 women and 4 men, also between 36 and 50 years. Three of them work in a 4-5-star hotel and 7 of them in a hostel. Participation was voluntary and anonymous, only some personal questions were asked (age, type of accommodation they work at, lengths of employment). Participants were informed properly about the usage of their data.

Data was collected during 8 months period of time, an online survey and the ProfileXT competency test were sent out to Hungarian and Spanish professionals. Managers were contacted via various platforms (social media, professional forums, direct emails to the accommodations in various cities, using the accommodation list of the largest hospitality website). The respond rate is low, as over 400 establishments were contacted in Hungary and Spain. Both in the test and the survey there are various different questions but, in this paper, only the relevant part is analyzed. The ProfileXT is a complex competency inventory designed for work environment. It contains three parts: working motivators, cognitive capabilities, and behavioral traits including specific skills and competencies. In this paper the focus is on the behavioral part, only this one is being analyzed. Six scales were selected: Assertiveness, Accommodating, Objective judgement, Decisiveness, Manageability, and Independence. In the survey one question was selected in order to analyze participant's self-awareness. In this question there is a list of skills, participants needed to rate them on a 5-point Likert scale where 1 stands for "Not my strength at all, should be developed" and 5 stands for "It is my strength, I am good at it". Both, the survey and personality test were available in Hungarian and Spanish.

The focus points of the study is:

- Inter- and intrapersonal skills: communication, conflict resolution style, manageability, decisiveness, independence and objective judgement
- How is a successful hospitality manager´s profile look like according to the test,
- What are their strengths and weaknesses.
- Self-awareness: how punctual are the observations of their own skills of the participants comparing to the test results
- The international difference: the study examines whether there are any similarities or differences between Hungarian and Spanish participants regarding their skills, opinions and personality traits.

4. DATA ANALYSIS

The ProfileXT test is available at an online platform, where the answers are registered. The result is calculated by the online program, reports are automatically generated. The graphical report contains scales from 1 to 10 for each skill. Even though, they are numerical scales, the meaning of the numbers is not linear. 1 does not necessarily mean lowest and 10 do not mean best scores. Scores are compared to average behavior, which is determined on a country specific, standardized normal distribution scale. The meanings of the numbers vary by the actual skills and a special license is required to be able to analyze them. Having the license takes to complete an analyzer course and an exam. Therefore, the analysis is based on this knowledge which results in punctual and appropriate analysis. Each participant has their own profile. In this paper individual profiles analysis is not the focus point, therefore average results of the Hungarian and Spanish groups are analyzed in case of some selected skills (Table 1).

4.1. Inter- and intrapersonal skills

Results on the behavioral scales represent the comfort zone of the person, which means in most of the situations he will behave like what the number represents. It is possible to behave differently, but that will cause some stress as the person is stepping out of the comfort zone. In this study group averages are calculated for each skill, which shows the comfort zone of the group.

The Assertiveness scale refers to communication style, level of confidence and capability of influencing others. On the lower scales (1-4) people tend to follow other people's opinion, they do not confront nor express their thoughts. For them it is very stressful to continuously confront others or make them follow them as a leader. On higher scales people are more and more confident and experience less stress when they are in a conflicted situation. They use their skills to convince others to follow their lead. For them, losing and argument would be very challenging, as they are ambitious enough not to let it go. Both groups' average is close to number 6, which refers to people who most likely will confront others, but in the 50-60% of the situations they feel less comfortable doing so, and possibly let a person with strong will win and choose a passive way of communication. However, in situations with less confrontation, their communication style can be is assertive (they express their thoughts, feelings, needs, etc. but also listen to what others have to say), but they will only take a lead when nobody else wants to. In this sense, it is possible that they will be able to choose the appropriate communication style in different situations.

Table 1: Test results of the Hungarian and Spanish groups

Average scores	Assertiveness	Accommo-dating	Objective Judgement	Decisiveness	Manageability	Independence
Hungarian group	6.4	5.8	7.1	5.7	6.7	4.7
Spanish group	6.1	3.6	4.3	6.4	3.5	8.1

The Accommodating scale shows the participants' attitude to teamwork, respecting other people' wishes and the level of need of acceptance. At lower numbers (1-4), people tend to pay less attention to other people' opinion and they have less need for them to be accepted. Therefore, they will find themselves more often in confrontations. Also, they do not respond to social pressure, if they do not agree with something, they would need to be convinced with reasonable argument. Higher the scores are, more likely people will agree with others opinion for the sake of peacefulness. They feel reasonable decision if it serves many other people's opinion around them. From scale 7, people tend to subsume their opinion to others and let theirs go. This scale is a complementary of the Assertiveness scale, because the two of them indicate the conflict resolution style. When someone scores high on the Assertiveness, he usually scores low on the Accommodating scale, and backwards. In case of the Hungarian group, their Assertiveness average score is 6.4 and the Accommodating average is 5.8. This combination means that the average Hungarian manager's conflict resolution style is compromising. In this case people seek for a fairly acceptable solution for both sides. To achieve this, both parties are willing to lose something for the other. In the Spanish group, the Accommodating scale is lower (3.6) and the Assertiveness scale is 6.1 which means, in most situations they will not be able to lose for the other party, as their need for cooperation is lower.

The Objective judgement scale refers to intuitive or objective perception. Comparing this scale to the Assertiveness and Accommodation scales, the combination gives information about the communication style. On the lower numbers (1-4), people are more intuitive and sensitive. In communication they pay more attention to "how" people talk to them. They often take things personal, even if the other party does not mean it. The Spanish managers have low Objective judgement (average 4.3), which makes them intuitive and emotional. This result comes with relatively high Assertiveness (6.1) and low Accommodating (3.6). This combination results a character with emotional communication style, less patience, mood driven decisions. In most situations it is hard to tell how they will react because of the low score of Objective judgement. They will express their feelings not in the diplomatic way if they feel the situation is unfair. Or, if they

do not express it verbally, they will have hard time to control their mimics, therefore their emotions will be recognizable. They can get offended on the communication style of other people and will react on that quite hot headed. The Hungarian group has higher Objective judgement score (7.1). Higher result on this scale means more realistic and objective perception but also can listen to their intuitions. With relatively high Assertiveness (6.4) and Accommodating (5.8), this character will consider others' point of view, emotional and objective information, then will try to solve a problem with mutual benefits. In communication they pay more attention to the actual meaning instead of "how" the message was delivered. They can be more empathetic than the Spanish managers because of the higher Accommodating result. The combination of Accommodating and Objective judgement gives information about someone's empathy. Spaniards have low Objective judgement, which suggests high empathy because of the intuitive ability, but with the low Accommodating score results less empathy because it also shows that they are less open to other people. Hungarians have higher Objective judgement and Accommodating score, which results in higher empathy.

The Decisiveness scale indicates the speed and amount of information when someone makes a decision. Both Hungarian and Spanish managers are in the medium range, which means they are able to make decisions relatively fast. As Spaniards have higher scores, therefore they are even faster and are willing to take more risk. This results that in most situations they can be more flexible and modify the decision if it is not relevant anymore.

Manageability is a scale of need of structure, rules and certainty. On this scale the Spanish group has relatively low scores (3.5) which means they do not like to follow any strict rules. If they do not agree with some rules or regulations, it is not likely they would follow it, most likely those rules will be questioned. With a combination of their Assertiveness score (6.1); this character is able to question their bosses, decisions or people with authority when they don't agree with something. The other party will need to take time and provide explanations for them to be convinced. The Hungarian leaders have higher score, which means, they feel safer when rules and expectations are clear and well drown. This also means, they could be less flexible about changes than the Spanish leaders. It is also shown at the decision-making process. As their Decisiveness score combines with the Manageability score for Spanish leaders, it seems they are more flexible, fast, and also independent.

This brings to the Independence scale, which indicated the need for control. Typically, when the Manageability scale is low, the Independence scale is high, then backwards, high Manageability score comes with low Independence scale. High Independence scale means, people need more freedom and less control at their work. Spanish leaders have 8.1 score on this scale, which matches with their low Manageability. Most likely they do not need any instructions from others; they would make their own ways, rules and regulations. With a combination of their low Accommodating score, it shows less willingness for cooperation. On the other hand, they are quite flexible and probably manage a business well alone. However, could be difficult for them to manage other people in an assertive and empathetic way. Even though, they will give freedom for employees to work their way out. The Hungarian leaders have quite opposite results on the Manageability and Independence scales. They score higher on the first one (6.7) and lower on the second one (4.7) which means they are more comfortable with rules and they do not have too much problems with following them. Even though, this combination still indicates some flexibility. When the roles and responsibilities are clear for them, they will be more than fine with working independently and making their own decisions. They would have more control over processes and employees too, but it does not mean micro managing, or stubbornness.

The combination of low Objective judgement, Accommodating and Manageability with high Independence, results in a free minded, emotional character, which will follow his own rules, decides fast and will not be shy to express positive or negative opinions. This character describes the average Spanish participants.

The other character reveals to the Hungarian group, their score combinations describe someone who is cooperative, but can stand up for themselves, feels more comfortable when the situation is well-defined, can be flexible, but also can follow instructions. Makes decisions based on enough and objective information, and able to take time to make a stable one. The perception tends to be more realistic and empathetic at the same time.

4.2. Self-awareness

In the survey, participants rated their skills according to how good they feel themselves at them in their working life (Table 2). Both groups gave similar rates, they both are relatively high, although the Spanish group tend to rate higher their abilities than the Hungarian group. This indicates that in general Spanish managers are more confident, than Hungarians.

Table 2: Survey results of the Hungarian and Spanish groups

	Hungarian group	Spanish group
Communication	4.1	4.1
Conflict resolution	3.9	4.2
Self-control	3.8	4
Empathy	3.9	4.5
Sense of reality	4.5	4.4
Decision making	4.1	4.2
Flexibility	4.1	4.6
Average	4.1	4.3

The average rating of the communication is the same (4.1) in both groups, which means most participants are quite satisfied with this skill. The test result confirms it, because the average is close to 6 points on the Assertiveness scale in both groups, which means they are able to choose the right communication style in most of the situations. Spanish participants find their conflict resolution skills better than the Hungarian group. However, the test results show more confrontational style for Spanish managers than Hungarians, which makes more difficult for Spaniards to please customers and give in, even when they feel they are not right. Most likely this will cause some stress for them, because most of the times they will feel that it is unfair that they make themselves do the opposite they would in their comfort zones. Even though, Hungarians' test result of conflict resolution style fit more to the hospitality manager position, they feel worst about it than Spaniards.

The Objective judgement scale gives information about the self-control. Spanish managers have lower result than Hungarian managers, which means Spaniards can act more emotional and because of this, control themselves less. Higher number on this scale means more realistic perception, also communication. Therefore, Hungarians most likely control themselves more often. Both groups have similar perception of their own self-control skills. In case of the Hungarian group this perception of themselves is more realistic (3.8) and probably works better with employees and guests in conflicted situations, as they will be able to put aside their emotions and act more professionally than Spaniards, whose test result and perception (4) differ. It is similar

to their perception of empathy. The test result gives somewhat higher ability for the Hungarian group, than the Spanish, but they rated themselves higher (4.5) than Hungarians (3.9).

It depends on the situation what is more efficient; to make a fast decision, than change it along the way of the process, or to collect more information and wait until a very stable one can be made. The test result of the two groups are very similar, however Spaniards are somewhat faster than Hungarians. Both groups scored very similar at the self-reflection scale (Hungarians 4.1 Spaniards 4.2), which means they both see themselves quite realistic.

Spanish leaders' test results show more flexible attitude to changes and rules, than the Hungarian group. At the self-reflection scale the average scores are very close to each other (Spanish group: 4.6, Hungarian group: 4.1) which means, they both see themselves quite punctual, as Spaniards are more flexible, Hungarians need more certainty, but they are still not rigid.
Overall, in most perspectives both groups are close how they see themselves and how their test results are. In some sores Hungarians perceptions are more punctual than Spaniards.

5. SUMMARY

In the analysis of the test, it is a very important determination, that there is no "good" or "bad" profile. The result always needs to be compared with the circumstances and the aims. In this study, the participants are hospitality managers, therefore the expectations to the position need to be considered. A successful hospitality manager should be able to communicate confidently, needs to influence others in a polite and persuasive way. Flexibility is very important on the Assertiveness scale, because different communication style could be successful when they deal with guests or employees. Usually when the manager's presence is requested in a conflicted situation with a guest, most likely guests are already emotionally involved. In this case, managers need to be calm, and very understanding in order to provide a great customer service. Usually the "guests are always right" mentality applies in many of the establishments, which indicates that managers will give in and let the guests "win". In the other hand, communicating with employees require a much more confident style than a submissive one. Therefore, on the Assertive scale the ideal level is around 6-7, which indicates that people can choose to behave lower or higher on the scale depending on the situation. In sense of customer service, resolving a conflict as smoothly as possible is crucial. Therefore, for those who have about 5-6 on the Accommodating scale will be less stressful to give in and make guests feel more comfortable. For the same reasons, self-control and empathy are very important skills in the industry. Therefore, Objective judgement ideally has medium for self-control, then combines with 6-7 Accommodating scores for empathy. Flexibility is not only important in communication styles, but also at everyday work situations. Managers should be able to resolve problems in flexible and creative ways, so guests can feel valued and comfortable. Also, people management needs flexible thinking, because dealing with different personalities can be challenging. Therefore, a balance between rules, regulations, and comfortable environment should be established at the accommodations. This means, medium scores on Manageability and Independency scales are ideal.

Both Spanish and Hungarian groups rated their skills relatively high, which means they believe they are able to use them successfully at their job. However, Hungarians test results show that in most situations their behavior and traits can be more successful in the hospitality manager position. This means, their self-awareness is more punctual and realistic.

Analyzing the results of the two groups, an average profile can be determined for each group. The Hungarian character: tries to please others, make more compromises in order to be accepted, well defined situations are more comfortable, tend to accept rules and follow them to a point. At the same time, they can change them if they are not applicable. They are realistic, decisions are based on facts. Their communication style could be more objective.

The Spanish character: assertive but tend to be dominant in emotional situations, free spirit, less rules, freedom is important, less control for them and they don't like to control others, situations are personal, emotionally driven. They are flexible, but will be more offended by others. Decisions are based on intuitions.

Most stereotypes describe a Spanish person a flexible, fun and free spirit person. Hungarian stereotypes are more about rigidity and more formal attitude. In this study, the test results show quite a match to these stereotypes.

6. CONCLUSIONS

Analyzing the personality types, skills and self-awareness of managers are the first steps. Afterwards, developing them is also very important. The success of an establishment starts with good management. Most decisions and rules are made by the management; the atmosphere depends on the way of leadership and people management skills. When employees feel valued and like their job, it often comes from the management. Even though, it is just one part of the complete picture. Employees are playing a very important part in the success as well. Once they are comfortable at their job and with their management, their personal skills are also very important, especially because they are the ones being in contact with customers. Therefore, skill development for them is also very important. More skilled the management and staff are, more professional the accommodation will be. In a professional, friendly and calm environment guests will feel more comfortable, which will result more positive online feedback, which will increase sales and eventually profit as well. As next steps of the study, it would be also important to research employees' personal skills. In addition, with the results of present study, a complex developmental plan can be drowned both for Hungarian and Spanish establishments.

REFERENCES

[1] Tas, R. (1988). Teaching Future Managers. The Cornell Hotel and Restaurant Administration Quarterly, 29(2), 41-43.
[2] Stogdill, R. M. (1974). Handbook of leadership. New York: Free Press.
[3] Hogan, R., Curphy, G. J., Hogan, J. (1994). What we know about leadership: Effectiveness and personality. American psychologist, 49(6), 493.
[4] Sandwith, P. (1993). A hierarchy of management training requirements: The competency domain model. Public Personnel Management, 22(1), 43–62.
[5] Dopson, L. & Tas, R. (2004). A Practical Approach to Curriculum Development: A case study. Journal of Hospitality & Tourism Education, 16(1), 39-46.
[6] Johanson, M., Ghiselli, R., Shea, L. J., & Roberts, C. (2011). Changing competencies of hospitality leaders: A 25-year review. Journal of Hospitality & Tourism Education, 23(3), 43-47.

[7] Petkovski, K. (2012). Required skills and leadership characteristics of a modern manager in tourism and hospitality. UTMS Journal of Economics, 3(1), 91-96
[8] Cherniss, C., & Goleman, D. (2001). The emotionally intelligence workplace. How to select for measure and improve emotional intelligence in individuals, groups and organizations san Francisco: Jossey-Bass.
[9] CG Davidson, M., McPhail, R., & Barry, S. (2011). Hospitality HRM: past, present and the future. International Journal of Contemporary Hospitality Management, 23(4), 498-516.
[10] Scott-Halsell, S. A., Blum, S. C., & Huffman, L. (2008). A study of emotional intelligence levels in hospitality industry professionals. Journal of Human Resources in Hospitality & Tourism, 7(2), 135-152.
[11] Kalargyrou, V., Pescosolido, A. T., & Kalargiros, E. A. (2012). LEADERSHIP SKILLS IN MANAGEMENT EDUCATION. Academy of Educational Leadership Journal, 16(4).
[12] Somlai, R. (2017). Vezetői kompetenciák felmérése a szállodaipar különböző szegmenseiben. TAYLOR, 9(1), 101-110.
[13] Jonckers, P. (2005). General trends and skill needs in the tourism sector in Europe. Trends and skill needs in tourism, 7-12.

ZLOUPOTREBA SLUŽBENOG POLOŽAJA I OVLAŠĆENJA U PRAVU REPUBLIKE SRPSKE

ABUSE OF OFFICIAL POSITION AND AUTHORITIES IN THE LAW OF REPUBLIKA SRPSKA

Miodrag N. Simović[1]
Dragan Jovašević[2]
Vladimir M. Simović[3]

DOI: https://doi.org/10.31410/EMAN.2019.17

Apstrakt: *Zakonito, kvalitetno, efikasno i cjelishodno postupanje službenih i odgovornih lica u državnim organima i pravnim licima u obavljanju povjerenih im javnih ovlašćenja i službene dužnosti predstavlja osnov i garanciju za funkcionisanje javnih službi i državnih organa uopšte. Od najstarijih vremena do današnjih dana javljali su se pojedinci i grupe koji su, umjesto da rade u interesu i za račun državnih organa i javnih službi u čije ime postupaju, kršili pravila službe i na taj način činili zloupotrebe raznih vrsta. Zloupotreba službenog položaja ili ovlašćenja je osnovno krivično djelo protiv službene dužnosti za koje je propisana stroga kazna zatvora. Djelo se javlja u vidu iskorišćavanja službenog položaja ili ovlašćenja, u prekoračenju granica službenog ovlašćenja ili u nevršenju službene dužnosti. Zavisno od namjere učinioca i vrste prouzrokovane posljedice, ovo krivično djelo se javlja u osnovnom i tri oblika ispoljavanja. U radu se govori o pojmu, elementima, karakteristikama i oblicima ispoljavanja zloupotrebe službenog položaja i ovlašćenja. kao osnovnog službenog krivičnog djela u pravnom sistemu Republike Srpske.*

Ključne riječi: *službena dužnost, zakon, krivično djelo, zloupotreba, službeno lice, odgovornost, kazna.*

Abstract: *Legal, quality, efficient, and purposeful actions by official and responsible persons in state bodies and legal entities in exercising entrusted public authorities and official duties are the foundation and guarantee for public services and state bodies functioning in general. From ancient times to the present day there have been individuals and groups who, instead of working in the interest and on behalf of the state bodies and public services violated rules of service and thus committed various abuse. Abuse of official position or authority is the ground criminal act against official duty punishable by severe prison sentence. The act appears in the form of exploitation of official position or authority in overstepping the boundaries of official authority or failing to execute official duty. Depending on the perpetrator's intent and type of consequence caused, this criminal act has primary and three expression forms. This paper discusses concept, elements, characteristics, and forms of the misuse of official position and authority as the principal official criminal act in legal system of Republika Srpska.*

Keywords: *official duty, law, criminal act, abuse, official, responsibility, punishment.*

---

[1] Sudija Ustavnog suda Bosne i Hercegovine i redovni profesor Pravnog fakulteta Univerziteta u Banjoj Luci, redovni član Akademije nauka i umjetnosti Bosne i Hercegovine, inostrani član Ruske akademije prirodnih nauka redovni član Evropske akademije nauka i umjetnosti i redovni član Balkanskog naučnog centra Ruske akademije prirodnih nauka

[2] Redovni profesor Pravnog fakulteta Univerziteta u Nišu

[3] Tužilac Tužilaštva Bosne i Hercegovine i vanredni profesor Fakulteta za bezbjednost i zaštitu Nezavisnog univerziteta u Banjoj Luci i Fakulteta pravnih nauka Univerziteta „Vitez“ u Vitezu

1. UVODNA RAZMATRANJA

Krivična djela protiv službene dužnosti predstavljaju različite oblike i vrste zloupotrebe službenog položaja i javnih ovlašćenja u vršenju službene dužnosti koje su upravo učinjene od strane službenih lica kao nosilaca tih ovlašćenja[4]. Najčešće se ovdje radi o postupanjima službenih lica u vršenju službene dužnosti, ne u interesu i za potrebe službe koju vrše, već u nekom drugom interesu - u namjeri da na ovaj način pribave sebi ili drugom fizičkom ili pravnom licu kakvu korist, odnosno da drugome nanesu kakvu štetu ili da teže povrijede prava drugih[5].

Tu se praktično radi o iskorišćavanju ili prekoračenju službenog položaja ili ovlašćenja ili o nevršenju službene dužnosti koje zbog posebno ispoljenog stepena težine i opasnosti Krivični zakonik Republike Srpske iz 2017. godine[6] predviđa kao krivična djela protiv službene dužnosti u glavi dvadeset petoj. Tako zapravo dolazi i do pojave zloupotrebe javnih ovlašćenja, službenog položaja, korupcije u raznim oblicima i vidovima što sve zajedno nanosi ogromne materijalne i druge štete ne samo pojedincima i ustanovama, već i cijelom društvu. S druge strane, ovakvim svojim postupanjem državni organi mogu da poljuljaju povjerenje među građanstvom (kao podanicima države) u postojeći sistem i funkcionisanje ne samo vlasti, već i cjelokupnog pravnog poretka, pa i u efikasnost pravne države[7].

Stoga je interes (pa i imperativ) svake države da suzbije ovakva nedopuštena ponašanja pojedinaca i grupa i da ih prinudi da svoja ovlašćenja i nadležnosti u postupanju vrše u granicama zakonom propisanim ili predviđenim u drugim podzakonskim opštim aktima. Svako prekoračenje i zloupotrebu ovih ovlašćenja država proglašava zabranjenim, protivpravnim i kažnjivim. Najopasnije oblike ovakvih ponašanja zakon inkriminiše kao krivična djela, propisujući za njihove učinioce kazne (zatvor) i druge krivičnopravne mjere (mjere bezbjednosti i sl). Manje opasna ponašanja u sferi zloupotreba službenih ovlašćenja zakonodavac je propisao kao prekršaje, ali i kao disciplinske prestupe.

Ovakve pojave nisu samo relikt prošlosti, već su one, na žalost, karakteristične i za društveno uređenje na početku 21. vijeka[8]. Takve povrede pogađaju, prije svega, pojedince, a potom i cijelo društvo. Ta zloupotreba, korumpiranost i samovlašće organa sa javnim ovlašćenjima i njihovih službenih lica predstavlja veliko društveno zlo koje istovremeno dovodi i do narušavanja ugleda pojedinih službi i organa, pa i autoriteta cijele vlasti[9]. Stoga se upravo predviđanjem krivičnih djela i drugih vrsta delikata protiv službene dužnosti službenih lica teži za potpunim obezbjeđenjem ispravnosti, zakonitosti, efikasnosti i cjelishodnosti u radu državnih organa i drugih organa sa javnim ovlaštenjima i tako očuva povjerenje građana u samu tu vlast i pravni poredak uopšte[10].

4 Radovanović, Đorđević, 369-371.

5 Jovašević, (2011), 462.

6 "Službeni glasnik Republike Srpske" br. 64/17 i 104/18. U daljem tekstu: KZRS.

7 Mišić, G. (2006). *Kaznena djela protiv službene dužnosti – poseban osvrt na kaznena djela korupcije*. Zagreb: Radno pravo, (9), 60-68.

8 Jovašević, D. (2008). *Korupcija kao oblik ugrožavanja vladavine prava u Srbiji*. Beograd: Zbornik radova „Srbija- politički i institucionalni izazovi", 385-416.

9 Jelenski, M. (1991). *Prevencija privrednog kriminaliteta*. Zagreb: Priručnik, (1), 50-57.

10 Mišić, G. (2005). *Kaznena djela protiv službene dužnosti – poseban osvrt na korupcijska kaznena djela*. Zagreb: Hrvatska pravna revija, (10), 82-95.

2. POJAM SLUŽBENIH KRIVIČNIH DJELA

Krivična djela protiv službene dužnosti[11] (službena, službenička ili činovnička krivična djela) predstavljaju u suštini razne vrste zloupotreba službenog položaja i javnih ovlašćenja u vršenju službene dužnosti od strane službenih lica kao nosilaca tih ovlašćenja[12]. Država kao organizovana društvena organizacija u svom aparatu ima više organa koji čine pojedine službe sa javnim ovlaštenjima. Državni aparat ima težnju da stalno jača, što vremenom dovodi do povećanja broja službi i lica koja rade u njima. Na taj način, država se postepeno pretvara u samostalnu snagu koja istina izvire iz društva što ima za posljedicu da pojedine službe i organi vrše javna ovlašćenja, ne samo u interesu cijele države (i cijelog društva), nego i u svom sopstvenom interesu[13].

Tako zapravo i dolazi do pojave zloupotrebe javnih ovlašćenja, zloupotrebe i kršenja službenog položaja, korupcije u raznim oblicima što nanosi ogromne štete ne samo pojedincima i ustanovama, već i cijelom društvu, pa i međunarodnoj zajednici u cjelini. Stoga je interes svake pravne države da u ime vladavine prava i zaštite korpusa osnovnih ljudskih prava i sloboda, suzbije, spriječi i preduprijedi ovakva nedopuštena, protivpravna ponašanja pojedinaca i grupa i da ih prinudi da svoja ovlašćenja vrše u granicama zakonom propisanim ili predviđenim u drugim podzakonskim aktima. Svako prekoračenje i zloupotrebu ovih ovlašćenja država proglašava opasnim i protivpravnim ponašanjem i u zakonu propisanom sankcijom kažnjava njegove učinioce[14].

Takva zloupotreba, korumpiranost i samovlašće organa sa javnim ovlašćenjima i njihovih službenih lica predstavlja veliko društveno zlo koje dovodi i do narušavanja ugleda pojedinih službi, pa i autoriteta cijele vlasti, do gubljenja povjerenja građana u zakonitost i cjelishodnost njihovog rada i do nanošenja štete pravima i interesima drugih fizičkih i pravnih lica. Stoga se upravo predviđanjem krivičnih djela protiv službene dužnosti teži za potpunim obezbjeđenjem ispravnosti i zakonitosti u radu državnih organa koji vrše javna ovlašćenja i tako očuva povjerenje građana u samu tu vlast i pravni poredak[15].

3. KARAKTERISTIKE SLUŽBENIH KRIVIČNIH DJELA

Službena krivična djela predstavljaju različite oblike i vidove zloupotrebe službenog položaja i javnih ovlašćenja u vršenju službene dužnosti od strane službenih ili odgovornih lica kao nosilaca tih ovlašćenja kojima se nanose teže posljedice za službu, odnosno dolazi do težeg ugrožavanja službe. Ovim se inkriminacijama, zapravo, nastoji da se obezbijedi ispravnost, cjelishodnost, blagovremenost, efikasnost i zakonitost u radu državnih organa koji vrše javna ovlašćenja i tako očuva povjerenje građana u pravni poredak i pravnu državu.

Objekt zaštite ovih krivičnih djela jeste službena dužnost državnih i drugih organa koji vrše javna ovlašćenja, odnosno dužnost odgovornih lica u preduzeću, ustanovi ili drugom subjektu. Ali, nije cilj učinilaca ovih krivičnih djela da povrijede ili ugroze službenu dužnost koju vrše, već da na ta način nanesu štetu drugom licu (imovinskog ili neimovinskog karaktera) ili da teže

11 Đurić, Jovašević, Rakić, 178-193.

12 Jovašević, Ikanović, 289-291.

13 Kregar, J. (2004). *Korporacijski kriminal i nove mjere suzbijanja korupcije*. Zagreb: Revizija, (3), 5-18.

14 Mišić, G. (2006). *Kaznena djela protiv službene dužnosti – posebna osvrt na neke slučajeve iz sudske prakse*. Zagreb: Hrvatska pravna revija, (6), 68-100.

15 Đurđić, Jovašević, 289-292.

povrijede pravo nekog drugog fizičkog ili pravnog lica[16]. Istovremeno se ovim krivičnim djelima povređuju ili ugrožavaju i druge društvene vrijednosti kao što su slobode i prava čovjeka i građana, imovina, privreda i sl[17].

Radnja izvršenja ovih krivičnih djela se preduzima u vršenju službene dužnosti ili u vezi sa vršenjem službene dužnosti[18]. S obzirom na vrstu službene dužnosti koja se krši i narušava vršenjem krivičnih djela, službena krivična djela se mogu podijeliti na dvije grupe. To su: 1) opšta službena krivična djela i 2) posebna službena krivična djela. Opšta službena krivična djela se mogu izvršiti u svakoj službenoj dužnosti od strane nosioca službenih ovlašćenja. Posebna službena krivična djela se, pak, mogu izvrštii samo u određenim vrstama i oblicima službene dužnosti.

Dalje, u pravnoj teoriji se može pronaći još jedna dioba krivičnih djela protiv službene dužnosti. Tako se sva službena krivična djela mogu klasifikovati na dvije vrste, i to na: 1) prava službena krivična djela i 2) neprava službena krivična djela. Prava službena krivična djela su ona djela koja može da izvrši samo službeno ili odgvoorno lice, i to samo u vršenju službene dužnosti ili javnih ovlašćenja ili u vezi sa njima. Neprava službena krivična djela su ona koja se mogu izvršiti i u službi i van nje.

Ovim krivičnim djelima se povređuje službena dužnost u smislu njenog pravilnog, cjelishodnog, blagovremenog, efikasnog i zakonitog funkcionisanja. Nisu, međutim, sve ovakve povrede krivična djela, već samo teže povrede, dok brojne lakše povrede službene dužnosti predstavljaju disciplinske prestupe. O tome kada će postojati krivično djelo, a kada disciplinski prestup - postoje dva shvatanja. Tako se: 1) prema kvantitativnom razlikovanju, krivična djela smatraju kao teže vrste delikata, a disciplinski prestupi slabije, manje povrede službene dužnosti. Razlika između njih nije u elementima samih delikata, već u intenzitetu i obimu prouzrokovane posljedice i 2) prema kvalitativnom shvatanju razlika između krivičnih djela i disciplinskih prestupa se nalazi u njihovoj prirodi, odnosno u karakteru i značaju ovih djela. To su dvije kategorije delikata koje se razlikuju po sadržini svoga bića[19].

U okviru ovih krivičnih djela su sistematizovana i tzv. krivična djela korupcije[20] (od kojih su najznačajnija sljedeća djela: 1) primanje mita iz člana 319 KZRS, 2) davanje mita iz člana 320 KZRS i 3) trgovina uticajem iz člana 321 KZRS kao opšta djela korupcije).

Korupcija predstavlja pojavu davnašnjeg porijekla koja je imanentna svim državnim organizacijama tokom svoje duge istorije. Ona se ispoljava u raznim oblicima, na različite načine i različitim sredstvima u širokom spektru djelatnosti. No, pri tome, ipak se ne smije zapostaviti činjenica da svi oblici korupcije (lat. *coruptio* - pokvarenost) ne moraju da sadrže obilježja određenih krivičnih djela za koja su propisane krivične sankcije. To, naime, znači da se pod pojmom korupcije ne smatraju samo krivična djela, već ovaj pojam po svom sadržaju, karakteru i prirodi prevazilazi granice krivičnopravne represije.

---

16 Novoselec, P. (2002). *Zlouporaba položaja i ovlasti kao gospodarsko kazneno djelo*. Zagreb: Hrvatski ljetopis za kazneno pravo i praksu, (9), 1-17.

17 Radovanović, Đorđević, 370 i 371.

18 Jovašević, (2005), 17-26.

19 Jovašević, Hašimbegović, 56-69.

20 Kokolj, Jovašević, (2011), 389-392.

Kao učinilac ovih krivičnih djela, po pravilu, se javlja domaće ili strano službeno ili odgovorno lice. Kod pojedinih krivičnih djela kao učinilac se javlja samo određeno službeno lice. Kod odavanja službene tajne iz člana 323 KZRS kao učinilac se može javiti i lice kome je prestalo svojstvo službenog lica u vrijeme izvršenja djela. No, ovdje postoje i takva djela koja može da izvrši svako lice: davanje mita iz člana 320 KZRS ili, pak, lice kome su predmeti krivičnog djela povjereni u službi ili na radu (kod pronevjere iz člana 316 KZRS i posluge iz člana 318 KZRS).

Službenim licem u svojstvu učinioca ovih krivičnih djela, u smislu člana 123 stav 1 tačka 3 KZRS, smatraju se[21]:

1) izabrani ili imenovani funkcioner u organima zakonodavne, izvršne i sudske vlasti, jedinice lokalne samouprave i u drugim organima i javnim ustanovama ili službama koje vrše određene upravne, stručne i druge poslove u okviru prava i dužnosti vlasti koja ih je osnovala;
2) sudija ustavnog suda, sudija, tužilac, pravobranilac;
3) lice koje stalno ili povremeno vrši službenu dužnost u navedenim javnim organima ili ustanovama, notar, izvršitelj i arbitar, ovlašteno lice u privrednom društvu ili u drugom pravnom licu kojem je zakonom ili drugim propisom donesenim na osnovu zakona ili zaključenog ugovora o arbitraži povjereno vršenje javnih ovlaštenja, a koje u okviru tih ovlaštenja vrši određenu dužnost;
4) drugo lice koje vrši određenu službenu dužnost na osnovu ovlaštenja iz zakona ili drugog propisa donesenog na osnovu zakona i lice kojem je faktički povjereno vršenje pojedinih službenih dužnosti.

Strano službeno lice, u smislu člana 123 stav 1 tačka 5 KZRS, kao učinilac ovih krivičnih djela je lice koje je član član zakonodavnog, izvršnog, upravnog ili sudskog organa strane države, javni funkcioner međunarodne organizacije i njenih organa, sudija i drugi funkcioner međunarodnog suda ili drugo službeno lice međunarodnog suda koje radi za naknadu ili bez naknade, na službi u Republici Srpskoj. Stranim službenim licem smatra se lice koje je član, funkcioner ili službenik zakonodavnog ili izvršnog organa strane države, lice koje je sudija, porotnik, član, funkcioner ili službenik suda strane države ili međunarodnog suda, tužilac, lice koje je član, funkcioner ili službenik međunarodne organizacije i njenih organa, lice koje je arbitar u stranoj ili međunarodnoj arbitraži, kao i drugo strano lice koje vrši određenu službenu dužnost na osnovu ovlaštenja iz zakona ili drugog propisa donesenog na osnovu zakona, kao i lice kojem je faktički povjereno vršenje pojedinih službenih dužnosti za stranca u Republici Srpskoj (vlasnici, suvlasnici, zastupnici firmi u Republici Srpskoj).

Kao izvršilac ovih krivičnih djela može se pojaviti i odgovorno lice[22]. Odgovornim licem se, u smislu tačke 6 stava 1 člana 123 KZRS, smatra lice koje na osnovu zakona, propisa ili ovlaštenja vrši određene poslove upravljanja, nadzora ili druge poslove iz djelatnosti pravnog lica kao i lice kome je faktički povjereno obavljanje tih poslova. Odgovornim licem smatra se i službeno lice kad su u pitanju krivična djela kod kojih je kao izvršilac označeno odgovorno lice, a u ovom zakoniku nisu propisana u glavi o krivičnim djelima protiv službene dužnosti, odnosno kao krivična djela službenog lica[23].

---

[21] Simić, Trešnjev, 93.

[22] Mrvić Petrović, 350 i 351.

[23] Simović, Simović, Todorović, 311.

U pogledu krivice, ova se krivična djela vrše sa umišljajem. Samo jedno službeno krivično djelo može biti izvršeno i sa nehatom kao oblikom krivice. To je djelo odavanja službene tajne iz člana 323 KZRS.

Sva zakonska rješenja u krivičnopravnom sistemu Bosne i Hercegovine (uključujući i krivično pravo Republike Srpske) predviđaju na gotovo istovjetan način pojam, karakteristike i sistematiku službenih krivičnih djela, sa identičnim obilježjima bića krivičnih djela i propisanim kaznama. No, bez obzira na manje ili veće razlike koje postoje među službenim krivičnim djelima, zavisno od krivičnog zakona koji ih predviđa, sva ova djela imaju iste zajedničke karakteristike po kojima se ona upravo i izdvajaju u zasebnu grupu krivičnih djela i koje čine njihovu specifičnost. Te zajedničke karakteristike službenih krivičnih djela se mogu odrediti s obzirom na: 1. objekt zaštite, 2. djelo se preduzima u vršenju službe, 3. svojstvo izvršioca djela, 4. vrsta posljedice i 5. oblik krivice.

3.1. Objekt zaštite

Objekt zaštite kod krivičnih djela o kojima je riječ u ovom radu jeste službena dužnost državnih i drugih organa koji vrše javna ovlašćenja[24]. No, u krivičnopravnoj literaturi nisu rijetka ni shvatanja prema kojima se kod ovih krivičnih djela ne može govoriti o jednom jedinstvenom zaštitnom objektu (u smislu dobra ili vrijednosti koji su zaštićeni krivičnim zakonodavstvom), već o višestrukom objektu krivičnopravne zaštite[25]. Pri tome se kao glavni ili prevalentni objekt zaštite kod ovih krivičnih djela ipak smatra državna uprava, javna vlast, javna ovlašćenja, zakoniti rad državnog aparata. Kao opšti objekt krivičnopravne zaštite se, takođe, kod ovih djela može uzeti i pravilno i zakonito vršenje službene dužnosti i drugih dužnosti koje se vrše u okviru javnih ovlašćenja.

Iako je prema ovako određenom objektu zaštite i izvršeno sistematizovanje krivičnih djela u posebnom djelu KZRS u grupu krivičnih djela protiv službene dužnosti, ipak se ovim djelima povređuju ili ugrožavaju i druge društvene vrijednosti. Naime, ovim se krivičnim djelima, istina nedozvoljeno ili nezakonito, vrše službene dužnosti ili se nezakonito koriste službena ili javna ovlašćenja. Međutim, nije cilj izvršilaca ovih djela da nezakonito koriste ili vrše javna ili službena ovlašćenja ili da nezakonito koriste službeni položaj, već da ovakvim svojim radnjama ostvare neki drugi nedozvoljeni protivpravni cilj[26]. Taj se cilj kod ovih krivičnih djela preduzetih od strane službenih lica u vršenju službene dužnosti svodi na ostvarenje koristi (imovinskog ili neimovinskog karaktera) za sebe ili nekog drugog (drugo fizičko ili pravno lice) ili, pak, na prouzrokovanje štete (imovinskog ili neimovinskog karaktera) nekom drugom fizičkom ili pravnom licu ili, pak, u povredi prava nekog drugog lica. Dakle, zloupotreba službene dužnosti se ovdje pojavljuje samo kao sredstvo ili način da se ostvari neki drugi nezakoniti cilj bilo uopšte ili na jednostavniji, uspješniji ili blagovremeniji način[27]. Pošto se povreda službene dužnosti kod ovih krivičnih djela javlja kao primarna ili prevalentna dušstvena vrijednost zbog koje zakonodavac i pruža krivičnopravnu zaštitu, ovakva krivična djela se sistematizuju u posebnu grupu djela upravo prema ovom zaštitnom objektu[28].

---

24 Jovanović, Jovašević, 415.
25 Grupa autora, 850.
26 Mrvić Petrović, 350.
27 Stojanović, Perić, (2000), 340 i 341.
28 Čejović, Miladinović, 403 i 404.

3.2. Vršenje službe

Krivična djela protiv službene dužnosti su upravljena na povredu ili ugrožavanje službene dužnosti ili službenog ili javnog ovlašćenja. Ona se preduzimaju od strane specifičnih izvršilaca, odnosno lica sa određenim ličnim svojstvom, a to je svojstvo domaćeg ili stranog službenog lica ili svojstvo odgovornog lica. Ova lica preduzimaju svoju radnju izvršenja upravo prilikom samog vršenja službene dužnosti, obavljanja različitih ovlašćenja, odnosno preduzimanja službenih radnji u vršenju ili povodom vršenja službe. To je sljedeća zajednička karakteristika službenih krivičnih djela.

Dakle, ova se krivična djela vrše u službi ili u vezi sa vršenjem službene dužnosti[29]. U ovom drugom slučaju, kao njihov izvršilac se ne mora uvijek javiti samo službeno lice (kao što je slučaj sa krivičnim djelom davanja mita pri kome se kao izvršilac javlja svako lice koje daje poklon ili kakvu drugu vrijednost - mito nekom službenom licu da u službi izvrši zakonitu ili nezakonitu radnju). Isto tako, i odavanje službene tajne kao službeno krivično djelo može da izvrši lice koje više nema svojstvo službenog lica, ali je tajnu koju je sada neovlašćeno saopštilo nepozvanom licu saznalo u vršenju službene dužnosti ili u vezi sa tom službom.

3.3. Svojstvo izvršioca djela

Sljedeća zajednička karakteristika službenih krivičnih djela se ogleda u svojstvu izvršioca djela[30]. Naime, kao izvršilac djela (lice koje preduzima djelatnost činjenja ili nečinjenja koja je u zakonskom opisu određena kao radnja izvršenja krivičnog djela) kod ovih krivičnih djela se mogu javiti sljedeće vrste lica. To su: 1) domaće službeno lice, 2) strano službeno lice i 3) odgovorno lice.

Iako se ovdje radi o službenim krivičnim djelima, kao njihov izvršilac se, pored službenog ili odgovornog lica, u određenim slučajevima može pojaviti i lice koje nema ovo svojstvo. Naime, kod malog broja krivičnih djela iz ove grupe, kao što su pronevjera i posluga, kao izvršilac se može pojaviti, pored navedenih lica, i drugo lice kome su predmeti krivičnog djela povjereni u službi ili uopšte na radu u državnom organu ili drugom pravnom licu. Dakle, ovdje je za postojanje djela bitno da se radi o licu kome su određeni predmeti (novac, hartije od vrijednosti ili druge pokretne stvari) „povjereni" u službi ili na radu (kojima on faktički rukuje u službi ili povodom vršenja službene dužnosti ili radne obaveze).

Kao izvršilac nekih krivičnih djela iz ove grupe (npr. odavanje službene tajne) može se takođe javiti i lice kome je prestalo svojstvo službenog lica. Dakle, učinilac ovog djela u vrijeme preduzimanja radnje izvršenja nema svojstvo službenog lica, ali je to svojstvo imalo ranije u vrijeme kada je i saznalo tajnu (podatke ili dokumente koji imaju status službene tajne).

I na kraju, kao izvršilac krivičnog djela davanja mita može se pojaviti svako lice koje daje poklon ili drugu korist (ili daje obećanje poklona ili druge koristi) službenom licu da ovaj u okviru službene dužnosti izvrši ili ne izvrši neku službenu radnju.

---

29 Lazarević, 299-301.

30 Jovašević, (2003), 465-468.

3.4. Vrsta posljedice

Posljedica kod krivičnih djela protiv službene dužnosti se ispoljava na dvojaki način. Ona se prvo javlja u vidu posljedice povrede. Ova se vrsta posljedice ispoljava na različite načine: u pribavljanju protivpravne koristi, u nanošenju štete drugome ili u povredi prava drugog lica[31]. Kao posljedica ovih krivičnih djela može se javiti i kršenje zakona i drugih propisa ili opštih akata ili donošenje nekog nezakonitog akta ili preduzimanje nezakonitog postupka[32].

Glavna posljedica kod službenih krivičnih djela se, ipak, ispoljava u vidu stvaranja konkretne, bliske, neposredne, stvarne opasnosti, odnosno u ugrožavanju pravilnog, kvalitetnog, blagovremenog, efikasnog i zakonitog vršenja službene dužnosti i službenih i javnih ovlašćenja. Naime, izvršenjem ovih krivičnih djela stvara se opasnost za službu ili drugo javno ovlašćenje. Ovdje se radi o opasnosti koja je stvarno, neposredno, blisko nastupila po zaštićeno društveno dobro ili vrijednost - službenu dužnost[33].

3.5. Oblik krivice

Pri preduzimanju radnje izvršenja krivičnih djela protiv službene dužnosti učinilac postupa sa umišljajem kao oblikom krivice. To je i logično jer se ovdje radi o krivičnim djelima koja predstavljaju svjesno i voljno kršenje službene dužnosti ili javnih ovlašćenja. Najčešće je nezakonito postupanje službenog lica praćeno i namjerom da se na ovaj način pribavi sebi ili drugom kakva korist ili namjerom da se drugome nanese kakva šteta ili namjerom da se teže povrijede prava drugog. Postojanje namjere, kao subjektivnog elementa na strani učinioca djela u vrijeme preduzimanja radnje izvršenja, u najvećem broju slučajeva ovaj umišljaj kvalifikuje kao direktan umišljaj (*dolus directus*), odnosno najviši i najizrazitiji oblik krivice u krivičnom pravu[34]. Samo u slučaju izvršenja krivičnog djela odavanja službene tajne zakon dozvoljava mogućnost da učinilac pri preduzimanju radnje izvršenja, pored umišljaja, može da postupa i sa nehatom (kao oblikom krivice).

4. ZLOUPOTREBA SLUŽBENOG POLOŽAJA ILI OVLAŠĆENJA

4.1. Uvodna razmatranja

U okviru službenih krivičnih djela se po svom značaju, prirodi, karakteristikama i posljedicama izdvaja krivično djelo zloupotrebe službenog položaja ili ovlašćenja, kao poseban, specifičan oblik korupcije, inače poznato od najstarijih vremena u istoriji krivičnog prava i prisutno u svim krivičnopravnim sistemima danas. Naime, službena i odgovorna lica su dužna da u vršenju svojih ovlašćenja, službene dužnosti ili javne službe postupaju zakonito i u skladu sa ciljevima i interesima službe koju vrše. To posebno važi za odgovorna lica koja vrše određene dužnosti u preduzećima, ustanovama i drugim subjektima, odnosno radnjama. Svako vršenje službe protivno zakonima, drugim propisima i opštim aktima, pa čak i pravilima struke, predstavlja jedan oblik zloupotrebe ovlašćenja i službene dužnosti uopšte[35].

31 Stojanović, Perić, (1996), 374.

32 Mišić, G. (2006). *Kaznena djela protiv službene dužnosti – poseban osvrt na neke slučajeve iz sudske prakse*. Zagreb: Hrvatska pravna revija, (6), 68-100.

33 Jovašević, (2003), 467.

34 Simić, Petrović, 280 i 281.

35 Jovašević, D. (1997). *Krivičnopravni aspekti zloupotrebe službenog položaja*. Beograd: Bezbjednost, (6),

Pojam zloupotrebe službenih ovlašćenja ili službenog položaja nije jedinstven. U najširem smislu zloupotreba (*abusus*) je svako ponašanje koje je protivpravno i protivno interesima službe, a posebno ono koje je protivno ustavu, zakonu ili drugom pravnom propisu ili opštem aktu[36]. Prema tome, svako službeno lice čije djelatnosti nisu u saglasnosti sa interesima službe - zloupotrebljava svoju službenu dužnost[37]. To se može učiniti na različite načine. U teoriji krivičnog prava razlikuje se pojam zloupotrebe službenog položaja u objektivnom i u subjektivnom smislu. Službena dužnost je zloupotrijebljena u objektivnom smislu kada službeno lice djeluje protivno interesima službe tako što prekoračuje svoja službena ovlašćenja ili ne vrši svoje službene dužnosti. Službena dužnost se zloupotrebljava u subjektivnom smislu kada službeno lice preduzima službene radnje koje su, istina, u okviru njegovog službenog ovlašćenja, ali to ne čini u interesu službe već da bi se postigao neki drugi cilj.

4.2. Osnovni oblik krivičnog djela

U članu 315 KZRS predviđeno je krivično djelo pod nazivom „Zloupotreba službenog položaja ili ovlašćenja“. Ovo se djelo sastoji u iskorišćavanju svog službenog položaja ili ovlašćenja, u prekoračenju granica svog službenog ovlašćenja ili u nevršenju svoje službene dužnosti u namjeri da se sebi ili drugom pribavi kakva korist ili da se drugome nanese kakva šteta ili teže povrijede prava drugog od strane službenog ili odgovornog lica[38]. Ovo je opšte i osnovno službeno krivično djelo. Objekt zaštite jeste službena dužnost, njeno ispravno, cjelishodno i zakonito vršenje. Cilj zaštite jeste, zapravo, da se obezbijedi efikasno vršenje državnih i društvenih poslova, uz potpuno poštovanje zakonitosti i pošten i savjestan odnos prema građanima kako bi se u krajnjoj liniji očuvalo njihovo povjerenje u organe vlasti, pa i u cjelokupni pravni poredak.

Djelo ima tri osnovna oblika ispoljavanja radnje izvršenja. To su: (1) iskorišćavanje službenog položaja ili ovlašćenja, (2) prekoračenje granica službenog ovlašćenja i (3) nevršenje službene dužnosti.

(1) Iskorištavanje službenog položaja ili ovlašćenja postoji kada službeno ili odgovorno lice preduzima radnju koja je, istina, u okviru njegovog službenog položaja ili ovlašćenja, ali to ne čini u interesu službe, nego da bi na taj način pribavio za sebe ili za drugo fizičko ili pravno lice kakvu korist (imovinskog ili neimovinskog karaktera) ili da bi drugome nanio kakvu štetu ili teže povrijedio prava drugog. Radnja izvršenja je iskorišćavanje službenog položaja ili ovlašćenja. Ono se može ispoljiti kao koristoljubivo (kada se za sebe ili drugog pribavlja kakva korist) ili maliciozno (kada se drugome nanosi šteta ili povreda prava) korišćenje službenog položaja ili ovlašćenja. Javlja se kod tzv. diskrecionih ovlašćenja kada službeno ili odgovorno lice procjenjuje cjelishodnost preduzimanja neke radnje, pri čemu kriterijum za procjenu cjelishodnosti jeste interes službe, a ne neki drugi interes. Ovo djelo postoji i kada preduzeta djelatnost službenog ili odgovornog lica nema karakter službene radnje, ali je učinjena zloupotrebom službenog položaja.

Ovaj oblik djela postoji kada službeno ili odgovorno lice preduzima radnju koja se, istina, nalazi u okviru njegovog ovlašćenja, ali to ne čini u interesu službe, nego da bi na taj način pribavio sebi ili drugom kakvu korist ili da bi drugome nanio kakvu štetu ili teže povrijedio prava dru-

806-818.

36 Sajo, A. (1998). *Corruption, Clientelism and Future of the Constitutional State in Eastern Europe*. New York: East European Constitutional Review, 7(2), 37-46.

37 Grupa autora,. 854 i 855.

38 Jovašević, (2003), 468-472.

gog. To je oblik zloupotrebe službenog položaja u subjektivnom smislu. Radnja izvršenja ovog vida krivičnog djela jeste iskorišćavanje službenog položaja ili ovlašćenja. Ovakva situacija je naročito moguća kod diskrecionih ovlašćenja. To su slučajevi kada je službeno lice ovlašćeno da procjenjuje cjelishodnost preduzimanja neke radnje, pri čemu kriterijum za procjenu ove cjelishodnosti treba da bude interes službe, a ne neki drugi interes (lični interes učinioca djela ili nekog drugog lica[39].

Ukoliko se službeno lice kod procjene cjelishodnosti ne rukovodi interesom službe već težnjom da ostvari sebi ili drugom kakvu korist, onda postoji ovo krivično djelo. Ako se, dakle, službeno lice pri toj ocjeni ne rukovodi interesima službe, već svoju odluku zasniva na interesima nekog drugog lica (ili čak svom interesu), iako djeluje u okviru svoga ovlašćenja, ono ga zloupotrebljava. Djelo se može izvršiti u ovom obliku i prilikom preduzimanja drugih službenih radnji. Naime, djelo se može izvršiti kako iskorišćavanjem službenog položaja, tako i iskorišćavanjem službenog ovlašćenja. Smisao ovog razdvajanja je u tome što su za odgovarajuće službene položaje vezana i posebna službena ovlašćenja. Svako službeno lice raspolaže sa odgovarajućim ovlašćenjima, ali službena lica koja se nalaze na određenim položajima imaju i posebna ovlašćenja koja upravo proizilaze iz tog položaja i službeno lice ih može koristiti samo dok se nalazi na tom položaju[40].

Službeni položaj je iskorišćen kada službeno lice iskoristi upravo ovlašćenja vezana za taj položaj u organizaciji službe da bi djelujući protivno potrebama i interesima službe - ostvarilo svoj ili tuđi interes. Ukoliko se u navedenoj namjeri iskorišćavaju ovlašćenja koja pripadaju službenom licu po osnovu vršenja službe, a ne s obzirom na položaj kojim ima u službi, tada postoji zloupotreba ovlašćenja. Do ovog oblika zloupotrebe tako može doći pri vršenju svake službene dužnosti, odnosno u vezi bilo kod službenog položaja[41] .

(2) Prekoračenje granica službenog ovlašćenja postoji kad službeno ili odgovorno lice preduzima radnje izvan granica službenog ovlašćenja čime pribavlja korist za sebe ili drugog ili drugome nanosi kakvu štetu ili teže povrijedi prava drugog. Ovaj oblik djela postoji kada učinilac ima ovlašćenje da vrši određenu dužnost, ali do određenih granica, pod određenim uslovima ili postupku koji je utvrđen zakonom ili drugim propisom ili naredbom višeg organa, pa u svom postupanju prekoračuje granice tih ovlašćenja.

Ovo prekoračenje granica službenog ovlašćenja postoji kada službeno lice preduzima radnju van njegovog službenog ovlašćenja, a u cilju pribavljanja kakve koristi za sebe ili drugog ili da bi se drugome nanijela kakva šteta ili teže povrijedila prava drugog. Ovo djelo postoji i onda kada službeno lice ima ovlašćenje da vrši određenu službenu radnju, ali samo do određenih granica ili u određenom obimu koje su utvrđene zakonom, drugim propisom ili naredbom višeg organa, odnosno pretpostavljenog starješine i prekoračenjem te granice ili tog obima ovlašćenja se čini ovo krivično djelo.

Prekoračenje granica službenog ovlašćenja postoji kada službeno lice vrši službenu radnju koja je izvan njegovog službenog ovlašćenja, a koja proizilazi iz njegovog službenog položaja. U ovom slučaju učinilac djela preduzima radnju, i to službenu radnju, ali koja je u nadležnosti dru-

---

[39] Novoselec, P. (2002). *Zloupotreba položaja i ovlašćenja kao privredno krivično djelo*. Zagreb: Hrvatski ljetopis za kazneno pravo i praksu, (9), 1-14.

[40] Jovašević, D. (2008). *Zloupotreba službenog položaja u lokalnoj samoupravi*. Beograd: Politička revija, (2), 509-521.

[41] Grupa autora, 856.

gog službenog lica, pri čemu nije od značaja da li se to drugo lice nalazi u odnosu nadređenosti ili podređenosti prema službenom licu koje prekoračuje svoje ovlašćenje ili, pak, ono preduzima službene radnje koje uopšte nisu u nadležnosti službe ili organa kome pripada. Takođe, ovaj oblik krivičnog djela postoji i kada službeno lice, bez prethodnog odobrenja ili saglasnosti, vrši službenu radnju iz okvira svog službenog ovlašćenja za čije je vršenje, međutim, potrebno prethodno odobrenje ili saglasnost nekog drugog službenog lica ili drugog organa[42]. Za prekoračenje službenog ovlašćenja neophodno je da službeno lice preduzima službene radnje, djelatnosti koje, same po sebi, nisu nezakonite i na čije je vršenje neko ovlašćen, ali nije ovlašćeno upravo ono lice koje ih i preduzima.

(3) Neizvršenje službene dužnosti postoji kad službeno ili odgovorno lice svjesno i voljno propušta da izvrši službenu radnju iz okvira svog ovlašćenja koju je dužno da izvrši ili kad tu radnju izvršava na takav način da se ne može ostvariti onaj cilj koji treba da bude ostvaren. Za postojanje djela je potrebno da propuštanjem svih ili nekih djelatnosti iz okvira službene dužnosti učinilac sebi ili drugom fizičkom ili pravnom licu pribavlja kakvu korist (imovinsku ili neimovinsku) ili drugom nanosi kakvu štetu ili teže povrijedi prava drugog.

Neizvršenje službene dužnosti postoji kada službeno lice svjesno i voljno propušta da izvrši službenu radnju iz okvira svoga ovlašćenja koju je dužno da izvrši ili kada tu radnju vrši samo formalno na takav način, takvim sredstvima, u takvo vrijeme ili na takvom mjestu da ni u kom slučaju tako ne može da ostvari onaj cilj (očekivani efekat) koji inače, redovno treba da bude ostvaren. Dakle, neizvršenje službene dužnosti postoji u onim slučajevima kada službeno lice ne izvrši službenu radnju iz okvira svog ovlašćenja koju je bilo dužno da izvrši (to je formalno i materijalno nevršenje službene dužnosti) ili kada tu radnju izvršava na takav način da se ne može postići cilj koji se upravo njenim preduzimanjem i trebao ostvariti (kada postoji formalno vršenje, a materijalno nevršenje službene dužnosti)[43].

To, drugim riječima, znači da se ovaj oblik krivičnog djela može izvršiti i činjenjem (aktivnom, pozitivnom djelatnošću) i nečinjenjem (negativnom djelatnošću). To su različiti slučajevi kada službeno lice po zahtjevu stranke ili na osnovu zakona ili obaveze nastale iz drugog propisa ne donese akt koji je inače dužno da donese u vrijeme i na način kojim može da se proizvede očekivano pravno dejstvo ili ga donese u momentu kada on više ne može da proizvodi pravno dejstvo na pravne odnose zainteresovanih stranaka.

Iako je suština ovog krivičnog djela da se njime ugrožava službena dužnost, njeno zakonito, kvalitetno i efikasno odvijanje, ipak ta vrsta posljedice ne odgovara prirodi i karakteru ovog službenog krivičnog djela. Naime, cilj je učinioca, zapravo, da na ovaj način sebi ili drugom pribavi kakvu (materijalnu - imovinsku ili nematerijalnu - neimovinsku korist) ili da da drugome nanese kakvu štetu, odnosno da teže povrijedi prava drugog lica[44]. Materijalna korist koja se pribavlja izvršenjem ovog djela može da se sastoji u pružanju podrške za izbor na neku funkciju, omogućavanje da se dobije stan, stipendija ili stručno usavršavanje, odnosno napredovanje u poslu, u davanju pozitivne kritike ili pohvale, a nematerijalna šteta se sastoji u davanju negativne ocjene, kritike, povredi ugleda, stvaranju podozrenja u službi ili sukoba sa drugima, u otežavanju ili onemogućavanju dobijanja odlikovanja ili priznanja i dr[45].

---

42 Lazarević, 305.

43 Stojanović, 232.

44 Garačić, A. (2003). *Odnos krivičnog djela zloupotrebe položaja i ovlašćenja i primanja mita*. Zagreb: Hrvatska pravna revija, (1), 79-86.

45 Simić, Trešnjev, 251.

Djelo je dovršeno kada je nastupila posljedica, tj. kada je pribavljena kakva korist ili drugome nanijeta kakva šteta ili teže povređena prava drugog.

Izvršilac djela može da bude službeno ili odgovorno lice, a u pogledu krivice potreban je direktan umišljaj koji karakteriše određena namjera.

Zavisno od namjere koja postoji na strani učinioca u vrijeme preduzimanja radnje izvršenja, za osnovni oblik ovog krivičnog djela je propisana kazna zatvora od jedne do pet godina. Ovo djelo karakteriše preduzimanje radnje izvršenja u nekom od navedenih oblika u namjeri učinioca da za sebe ili drugog pribavi kakvu neimovinsku korist ili da drugome nanese kakvu štetu ili teže povrijedi prava drugog. Ova namjera mora da postoji u vrijeme preduzimanja radnje izvršenja, ali ne mora da bude i ostvarena u svakom konkretnom slučaju.

4.3. Kvalifikovani oblici krivičnog djela

Iz zakonskog opisa krivičnog djela zloupotrebe službenog položaja ili ovlašćenja iz člana 315 KZRS razlikuju se, pored osnovnog oblika ovog djela, još i tri kvalifikovana oblika djela.

Prvi teži oblik ovog krivičnog djela (stav 2) postoji kada je radnjom izvršenja u bilo kom obliku pribavljena imovinska korist u iznosu koji prelazi 10.000 KM. Za ovo je djelo propisana kazna zatvora od dvije do 12 godina. Prilikom utvrđivanja visine imovinske koristi, po pravilu, je mjerodavna tržišna vrijednost prema vremenu preduzimanja radnje izvršenja. Međutim, izuzetno ako je izvršilac krivičnog djela postigao imovinsku korist veću od tržišne vrijednosti stvari pribavljenih krivičnim djelom, onda je za pravnu kvalifikaciju djela odlučna stvarno postignuta visina imovinske koristi, i to prema vremenu izvršenja radnje krivičnog djela.

Kaznama iz st. 1 i 2 ovog člana kazniće se i strano službeno lice ili odgovorno lice u stranom pravnom licu koje ima predstavništvo ili vrši djelatnost u Republici Srpskoj ili lice koje vrši poslove od javnog interesa ako je djelo izvršeno u periodu vršenja njegovih ovlaštenja ili dužnosti (stav 3).

Najteži oblik krivičnog djela iz člana 315 KZRS, za koji je propisana kazna zatvora od tri do 15 godina, postoji ako je djelo iz st. 1, 2 i 3 ovog člana izvršeno pri vršenju javnih nabavki ili na štetu sredstava budžeta Republike Srpske, javnih fondova ili drugih javnih sredstava (stav 4).

5. ZAKLJUČAK

Jedan od osnovnih postulata pravne države i vladavine prava uopšte jeste zakonito, kvalitetno, efikasno, blagovremeno i cjelishodno funkcionisanje javnih ovlašćenja, javnih službi, državnih organa i drugih ustanova. Zato je potrebno da domaća ili strana službena i odgovorna lica, kao nosioci javnih funkcija i službenih ovlašćenja, zakonito i efikasno obavljaju povjerene poslove ili dužnosti, odnosno da postupaju u granicama svojih zakonskih ovlašćenja. Kršenjem službene dužnosti dolazi do izvršenja nekog od krivičnih djela protiv službene dužnosti.

To su različiti oblici i vidovi zloupotrebe službenog položaja i ovlašćenja u vršenju službene dužnosti upravo od strane službenih ili odgovornih lica u tim organima. Na taj način, ne samo da se ugrožava službena dužnost i javna ovlašćenja, već se na taj način drugim fizičkim ili pravnim licima prouzrokuje kakva imovinska ili neimovinska korist ili pak teža povreda prava drugog lica ili pak učinioci ovih djela na ovaj način za sebe ili drugog pribavljaju kakvu imovinsku ili neimovinsku korist.

Osnovno službeno krivično djelo je zloupotreba službenog položaja i ovlašćenja iz člana 315 KZRS. Djelo ima više oblika ispoljavanja: osnovni i čak tri kvalifikovana oblika, zavisno do motiva (namjere) učinioca i vrste (obima i intenziteta) prouzrokovane posljedice.

Ovo djelo se sastoji u iskorišćavanju službenog položaja ili ovlašćenja, prekoračenju granica službenog ovlašćenja ili u nevršenju službene dužnosti. Kao učinilac djela se javlja određeno lice - službeno ili odgovorno lice, a na strani učinioca u vrijeme preduzimanja radnje postoji direktan umišljaj koji kvalifikuje određena namjera.

LITERATURA

[1] *Administrative Investigation - Abuse of Authority, Misuse of Position and Resources, Acceptance of Gratuities, and Interference with an IG Investigation National Programs & Special Events*. VACO, Office of Inspector General Washington, DC, 2010.
[2] Čejović, B., Miladinović, V. (1995). *Krivično pravo, Posebni dio*. Niš.
[3] Đurđić, V., Jovašević, D. (2010). *Krivično pravo, Posebni dio*. Beograd.
[4] Đurić, Ž., Jovašević, D., Rakić, M. (2007). *Korupcija – izazov demokratiji*. Beograd.
[5] Faulend, M., Stošić, V. (1999). *Je li neslužbeno gospodarstvo izvor korupcije*. Zagreb.
[6] Ferhatović, A. (2012). *Zloupotreba položaja ili ovlašćenja*. Sarajevo: Godišnjak Pravnog fakulteta u Sarajevu, Vol. 55.
[7] Grupa autora. (1995). *Komentar Krivičnog zakona Republike Srbije*. Beograd.
[8] Jovanović, LJ., Jovašević, D. (1995). *Krivično pravo, Posebni dio*. Beograd.
[9] Jovašević, D., Hašimbegović, T. (2001). *Zloupotreba službenog položaja*. Beograd.
[10] Jovašević, D. (2003). *Komentar Krivičnog zakona Republike Srbije sa sudskom praksom*. Beograd.
[11] Jovašević, D. (2005). *Zloupotreba službenog položaja i korupcija*. Beograd.
[12] Jovašević, D. (2008). *Krivična djela korupcije*. Beograd.
[13] Jovašević, D. (2011). *Leksikon krivičnog prava*. Beograd.
[14] Jovašević, D., Ikanović, V. (2012). *Krivično pravo Republike Srpske, Posebni dio*. Banja Luka.
[15] Kokolj, M., Jovašević, D. (2011). *Krivično pravo Republike Srpske, Opšti i posebni dio*. Bijeljina.
[16] Lazarević, LJ. (1993). *Krivično pravo, Posebni dio*. Beograd.
[17] Mrvić Petrović, N. (2005). *Krivično pravo*. Beograd.
[18] Radovanović, M., Đorđević, M. (1975). *Krivično pravo, Posebni dio*. Beograd.
[19] Simić, I., Petrović, M. (2002). *Krivični zakon Republike Srbije, Praktična primjena*. Beograd.
[20] Simić, I., Trešnjev, A. (2010). *Krivični zakonik s kraćim komentarom*. Beograd.
[21] Simović, M., Simović, V., Todorović, LJ. (2010). *Krivični zakoni Bosne i Hercegovine*. Sarajevo.
[22] Stojanović, Z., Perić, O. *Komentar Krivičnog zakona Republike Srbije i Krivični zakon Republike Crne Gore sa objašnjenjima*. Beograd.
[23] Stojanović, Z., Perić, O. (2000). *Krivično pravo, Posebni dio*. Beograd.
[24] Stojanović, Z. (2002). *Komentar Krivičnog zakona SR Jugoslavije*. Beograd.
[25] Weisburd, D., Greenspan, R., Hamilton, E.E., Bryant, A. K.,Williams, H. (2001). *The Abuse of Police Authority. A National Study of Police Officers' Attitudes.* Police Foundation, Washington.

THE ROLE OF THE ACADEMIC LIBRARIANSHIP IN THE ECONOMIC DEVELOPMENT: EXPERIENCE FROM SERBIA ON THE THRESHOLD OF 2020

Vesna Župan[1]

DOI: https://doi.org/10.31410/EMAN.2019.31

Abstract: *Library materials on the economic development are available in different forms to potential readers. The scope of this paper is to explain the organization of knowledge on the economic development in Serbian academic librarianship. It is due to this paper that potential library users will receive an insight into the e-resources of professional and scientific information on the economic development which are available in Serbian academic librarianship.*

Its nature is the international one because it is included into the process of globalization through the creating and promoting its freely available data bases. Except that, it is internationalized long time ago because it contains those library materials which can be borrowed from abroad. In addition, the central university library in Belgrade implements international standards in cataloguing and classification of library materials.

This paper concentrates on those academic libraries in Serbia which are included into COBISS (Cooperative On-line Bibliographic System & Services). Many academic libraries in Serbia are included into this system. It is due to this fact that a cumulative e-catalogue exists. All these libraries contribute to its content by their regular work in the domain of acquisition, cataloguing and classification of library materials.

The method used in this paper is the empirical one with the statistical access to the indispensable data which are the result of retrieving data bases, having in mind the problems of the economic development. It is on the threshold of the next decade that open repositories become more and more developed. Professional as well as scientific knowledge on the economic development becomes closer and closer to the readers from all the world. The border between a rural environment and the urban zone is surpassed long time ago by those readers who have technical skills for the efficient retrievals of data bases.

Keywords: *economic development, Serbia, academic librarianship, globalization, Information Society.*

1. INTRODUCTION

The expansion of professional and scientific information is among key characteristics of a contemporary society. Human resources make great influence on the quantity and the quality of work. From the historical point of view, the implementation of international standards in work processes contributes very much to the adjustment of enterprises, institutions or simply – organizations to the global information streams.

Classification is an operation that people were realizing since *Ancient Greece* and *Ancient Rome*. There has always been a need to group similar objects and to describe them in the adequate way which would annulate a potential chaos wherever it can be expected. Knowledge is to be organized and memorized in a way which would allow its efficient retrieval and implementation.

[1] Vesna Župan, "Svetozar Marković" University Library, Bulevar kralja Aleksandra 71, 11000 Belgrade, Republic of Serbia

E-catalogues have their evolution. Library users wished them to be more interactive than earlier. The central library of The University of Belgrade e. g. „Svetozar Marković“ University Library [1] had the opportunity to catalogue its materials in the system COBISS (Cooperative On-line Bibliographic System & Services) [2] until 2012. This system became more complex later on. It included more libraries as its members. Furthermore, a cumulative e-catalogue was formed. Many academic libraries of Serbia belong to the system COBISS.SR. It is not obligatory for any Serbian academic library to get included into this system because there are also other information technologies in Serbia. However, when a library entered that system once, it would be difficult to change its strategic orientation because of the technical base of work and the education of librarians who have to stay very familiar with cataloguing and classification of library materials in the framework of a bibliographic system they work in.

If all the academic libraries in Serbia would accept COBISS, there would be a type of monopoly and that wouldn't be desirable under the conditions of a healthy competition. It is not a characteristic of enterprises on contemporary markets only – to face competition within their regular activity - but also of non-profit organizations. The creating of an intellectual capital implies a concentration on professional and scientific resources, faculty plans and programs, students living standard, training courses, etc.

The academic libraries are included into the intellectual core of Serbian society. Many generations of future intellectuals study in their reading rooms every day. Therefore, particular attention should be paid to their technical conditions of work and the acquisition of materials on the economic development and similar professional problems such as: the international economy, technological progress, entrepreneurship, multivariate analyses, international finance etc.

If we would get back to cataloguing as a process, we should have in mind that those librarians who realize *subject cataloguing* meditate on the content of library materials. So, they do not contact often with users. However, they work for the e-catalogue of the library they are employed in. Therefore, these librarians have to neglect sound communication in order to stay concentrated on their own work. They often receive those library materials that nobody had catalogued in COBISS earlier. It means that these librarians have to compose:

- a subject heading or a topic determinant,
- a topic sub determinant,
- a geographic sub determinant,
- a time sub determinant,
- a formal sub determinant.

Librarian describes a logical connection between or among professional terms. He decides whether he would emphasize a word from a title, or from a content after he would see the illustrations, a bibliography of the work, indexes, summaries etc. It is due to his influence on the frequency of words that he directs users' thoughts through scientific streams, stimulating him to connect different disciplines and analyze economic, social and other topics in the context of his profession.

2. THE ADVANTAGES AND THE DISADVANTAGES OF E-LEARING

Having in mind the development of technological civilization a group of authors [3] mentions that key components of that development are: management, marketing, innovations, technology and quality. Every *homo sapiens* who enrolls studies nowadays has in mind those professional

divisions which would help him to get a sustainable employment faster and to follow development without problems participating in it from an educational, economic and technical point of view. Contact with computer equipment and actual information resources will help many students to finalize their studies more successfully and to continue their studies on postgraduate level adequately prepared. The students will follow postgraduate studies with equal success if they would retrieve e-catalogues as carefully as earlier. Therefore, it is to be noticed that COBISS.SR offers:

- an access to the e-catalogues of individual academic libraries,
- an access to a cumulative e-catalogue.

Academic libraries deserve particular attention in the framework of each university because they are centers for the dissemination of information which are being visited by users e.g. students, researchers and professors as often. So, the academic libraries are the organizations which contribute regularly to the process of e-learning. This process is one of key processes during higher education nowadays.

The subject cataloguing of articles, books and serials is to be done unavoidably for every bibliographic description. Except that, it contributes to the development of users specialized vocabulary. As it is possible to increase the number of fields 606 in COBISS, it is also possible to determine several or even numerous subject headings (topic determinants) and sub determinants for every library item. It is one of the possible ways to develop scientific thought.

Almost every library user retrieves an e-catalogue typing out a keyword. Professional staff determines subject headings holding library material(s) in hands e. g. „de visu“ (latin expression used often in librarianship. It means: *on the base of materials which are seen*). That staff has convenient qualifications and the level of linguistic culture. Therefore, library staff has also the opportunity to lead a user online towards a higher level of thinking in the domain of his studies and professional orientation.

The advantages of e-learning are:

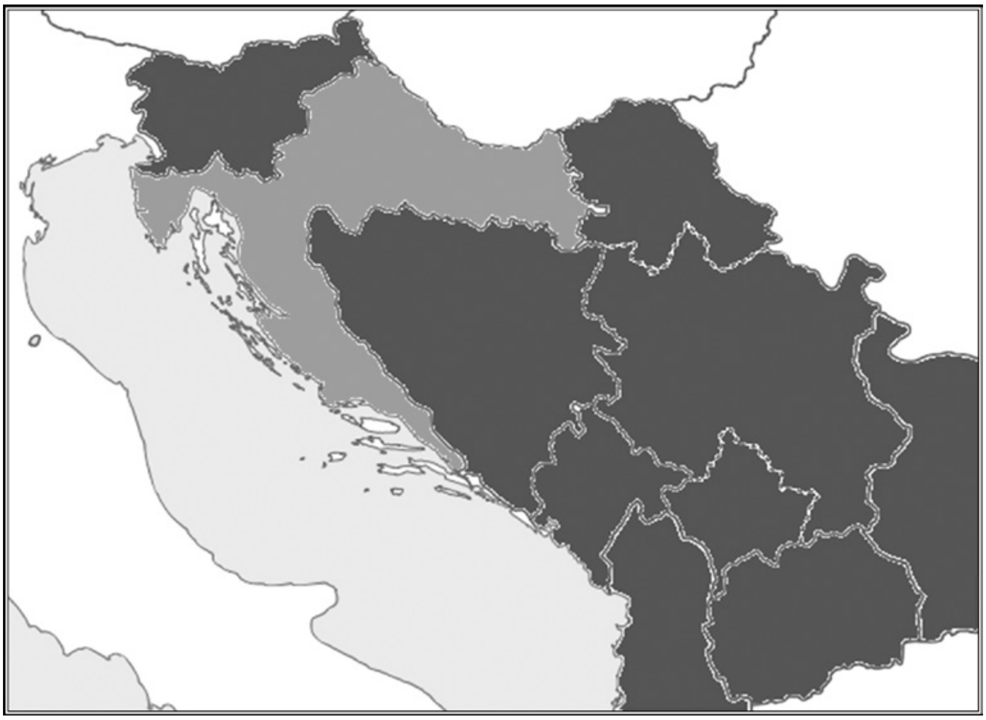
- it is easier to find more comfortable place for studying,
- a person may repeat reading several times over PC,
- there is a possibility of using e-dictionaries and other similar materials,
- the resources of information in foreign languages are also available due to the web,
- interactivity between a reader and a computer is particularly expressed during e-learning.

While Diderot, Rousseau, Goethe, and Schiller were creating their best works, there was no computer. While Mozart and Tchaikovsky were composing there was no PC in households. People were reading even in parks. It is not a case nowadays.

There are also certain disadvantages of e-learning:

- a computer is to be acquired, which is not a small expenditure for a student, particularly if he is unemployed,
- a reader should have software installed and Internet connection activated also,
- person should be familiar with new technologies but some of them are too requiring and still unknown to library users,
- it is not easy to work with the files whose memory is very big particularly if some computer viruses appear often etc.,
- e-learning is oriented much more towards reading inside a building.

This imposes the indispensability to equip the academic libraries better by the computer equipment of contemporary type. The role of librarians is more and more expressed in the process of instructing users. Information literacy is being developed usually from the first steps in the retrieval of Internet and data bases. E-catalogues are very often at the beginning of every serious research. It is not amazing because they illustrate how rich or how poor library collections are in the domain of the economic development.



Map 1. COBISS in South Eastern Europe

Nowadays, university libraries in Serbia have their own printed collections and digital materials which include literature on the economic and social development. These libraries have also an access to the aggregated databases with e-articles in full text. This free access exists for all the academic libraries in Serbia which are included into KoBSON (The Consortium of Serbian Libraries for Coordinated Acquisition) [4]. It receives certain discounts for the subscription to the e-journals. So, the academic libraries in Serbia follow the professional practice of similar libraries in Europe. It is not a dilemma any more: „to have a consortium or not?" but which electronic journals are to be selected in order to make the work of the academic libraries more efficient for those researchers who go in for the economic development. Librarians do not make such a selection but professional boards on a higher level than a faculty is.

According to Slavoljub Milovanović who was writing on e-learning, the educational institutions which plan the introducing of e-learning should consider not just the advantages but also the disadvantages such as: the absence of personal contact among the participants in the educational process, high price of new technologies, the need for additional knowledge and skills which do not exist in classical education (knowledge on new IT, solving technical problems with equipment, finding feet before a camera etc.) [5].

The Bibliography of Researchers in the academic environment of Serbia is being created thanks to the academic librarians who are trained, experienced and organized in such a way to catalogue and classify library materials including articles from monographies such as conference books and

high-quality serials as well. Every researcher has his number within the data base E-CRIS.SR (Electronic Current Research Information System in Serbia) [6]. In this free access data base users may find information on authors' year of birth, the organization he works in, as well as his contact address.

Although it isn't very rich in literature, the central library of the University of Belgrade is a contemporary library with a tradition long enough to meet the expectations of its users in all the scientific fields, particularly in social sciences. Except this, as far as central Serbia is concerned, The University of Niš has its University Library „Nikola Tesla" [7]. The University of Kragujevac has also a University Library for the needs of its users [8]. These three university libraries are included into COBISS.SR from the very beginning of its establishment. The Matica Srpska Library in Novi Sad is also included into COBISS.SR from the very beginning of the establishment of this bibliographic system [9]. Therefore, the academic librarians of these libraries participate very actively in the cataloguing and classification of literature, particularly monographies and articles.

3. MATERIALS ON THE ECONOMIC DEVELOPMENT IN SERBIAN ACADEMIC LIBRARIANSHIP

It is for the purposes of classification of library units including those on the economic development that UDC (Universal Decimal Classification) is being used on. All the academic libraries in COBISS.SR use it. Subject headings exist as well as different types of sub determinants. According to the form, a monography can be a master work, doctoral dissertation, conference book, handbook, etc. Cataloguing in COBISS.SR including the classification of library units makes bibliographic descriptions created and professionally finalized in accordance with the international standards for bibliographic description of library materials.

Universal Decimal Classification is a key process in the organization of knowledge for a library whose collection consists of more than a million units. *Subject cataloguing* in an academic library is the result of professional thinking connected to the problems of the economic development in our case. It is due to the fact that library users in economics, philosophy or political sciences, for example, can notice easier what is in the first plan, what in the second and what is in the third plan of a monography whose bibliographic description they noticed on the screen upon the retrieval of an e-catalogue.

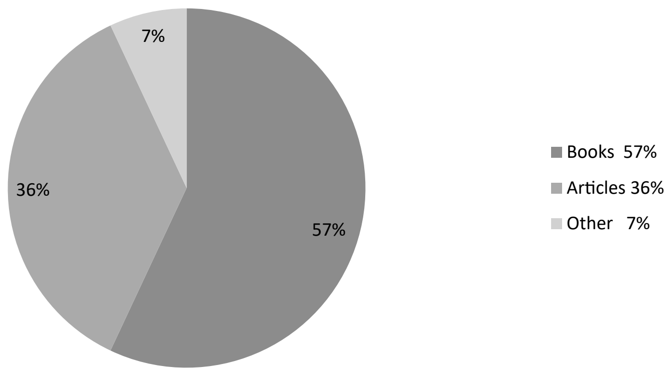


Chart 1. Formal structure of bibliographic descriptions
for the key term **economic development** in Serbian academic librarianship.

Source by the author using data from COBIB.SR accessed 14 February 2019.

Such a retrieval is based usually on keywords, less often on a certain classification number. Universal Decimal Classification (UDC) is an artificial language. It is a numerical language which describes the nature of a work - a monography, an article or any other unit - that a librarian has to catalogue and classify. Except that, UDC is being used to describe the content of every library unit. Library units on the economic development are being catalogued „de visu", e.g. on the base of a seen material. This refers also to all other materials in Serbian academic libraries. So, if there is a bibliographic description for a library unit in a database, it means that there is a real, acquired unit in that library collection. It would be just indispensable to check up whether it is available or lent and when it would be returned by the previous reader who would make the unit available for the next user that way.

Despite the fact that a university library, generally speaking, is rich in literature, the lack of materials on the economic development is to be compensated for. One of the possible ways is an interlibrary loan service with abroad. It exists in the central library of the University of Belgrade, for example whose range of services is wide. Another possibility is the use of e-resources. Such resources needn't require passwords compulsory. Very often a person may find useful contents in an open access.

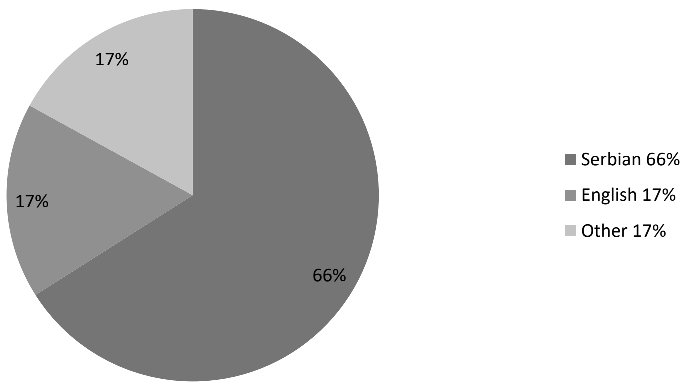


Chart 2. Linguistic structure of bibliographic descriptions for the key term **economic development** in Serbian academic librarianship

Source: By author using data from COBIB.SR accessed 14 February 2019.

The globalization of knowledge is very intensified today. The universities in Serbia rely on Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities [10]. It is signed on 11 November 2011 by the rector of the University of Belgrade, professor Branko Kovačević [11]. It is just one out of several signatures from the universities in Serbia based on such a document as Berlin Declaration is. Such an orientation towards the open access is confirmed in regular activities of the university libraries in Belgrade, Kragujevac, and Niš whose state universities established open repositories. There are three PHAIDRA (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets) repositories in Serbian academic community:

- PHAIDRA which belongs to the University of Belgrade [12],
- PHAIDRA of the University of Kragujevac [13], and
- PHAIDRA of the University of Niš [14].

PHAIDRA is being used to download the full texts of doctoral dissertations which are defended in the academic Serbia. These full texts are freely available. The connection between an e-catalogue of each university library mentioned and the open repository of its university exists. As these e-catalogues are freely available, it is simple to convince every user that he should just

retrieve the e-catalogue in order to find an adequate reference for his work. If that bibliographic description contains a blue link e.g. a permanent link, he may simply activate it in order to open the dissertation in full text. Therefore, it should be said that all doctoral dissertation on the economic development are to be found in the same way except if they had been defended in Serbia before the Berlin Declaration was signed and before a PHAIDRA repository was created.

The European Portal of E-theses DART [15] is a useful resource of doctoral dissertations on the economic development. This paper will illustrate the situation in e-resources today, having in mind their role in the process of knowledge globalization and scientific development. Therefore, this paper gives an insight into the collections of Serbian academic librarianship in the domain of the economic development respecting the European and the international framework Serbian librarianship performs its activity in.

Table 1. E-theses for a key term ***economic development***
on the Portal of European E-theses DART

State	No. of e-theses
United Kingdom	5.301
France	3.631
Netherlands	2.470
Spain	1.514
Sweden	1.474
Italy	1.377
Greece	513
Finland	499
Ireland	489
Switzerland	415
Belgium	318
Norway	279
Hungary	218
Serbia	188
Czech Republic	110
Lithuania	105
Germany	88
Denmark	77
Estonia	73
Croatia	61
Portugal	58
Latvia	30
Austria	18
Bulgaria	15
Poland	12
Slovenia	8
Cyprus	3

Source: By author using www.dart-europe.eu accessed 18 February 2019.

The works of the experts from state capitalism and other varieties of capitalism were useful enough to make great influence on those economists in Serbia who were ready to express their will for changes and contribute to their efficient realization through their own professional work.

Library resources and materials mentioned in this paper are particularly beneficial for the development of the economic scientific thought in a new technological environment. Therefore, Serbian academic libraries deserve great attention particularly if it is known that every serious economic research begins in some of them and the results are also obtained in their collections or repositories. This paper doesn't comment the problem of the quality of library units.

The creators of macroeconomic policy make influence on the economic development in Serbia and in every other country. Except that, the creators of the development policy of an enterprise make influence through its success on the development of the national economy. Having this in mind, it is through the retrieval of the European Portal of E-theses DART that data presented in the second statistical table are received.

Table 2. E-theses for the inquiry ***economic development and economic policy*** on the European Portal of e-theses DART

State	No. of e-theses
United Kingdom	2.739
France	1.331
Netherlands	926
Spain	591
Italy	583
Sweden	542
Ireland	247
Greece	216
Belgium	167
Finland	156
Switzerland	140
Hungary	109
Norway	107
Serbia	89
Czech Republic	43
Estonia	35
Croatia	33
Lithuania	30
Denmark	25
Portugal	21
Latvia	16
Austria	10
Germany	8
Bulgaria	4
Poland	3
Cyprus	1
Slovenia	1

Source: www.dart-europe.eu (accessed 20 February 2019.)

4. CONCLUSION

The collections of Serbian academic librarianship contain literature on the economic development, particularly in Serbian and English. The vast majority of bibliographic descriptions on the economic development, in the cumulative e-catalogue COBIB.SR, refers to monographies.

Smaller number of references on the economic development, in the same electronic catalogue, refers to articles. The lack of literature on the economic development in Serbian academic librarianship is to be compensated for in different ways such as:
1) the retrieval of aggregated databases with e-articles,
2) the retrieval of those repositories which contain e-books, and / or
3) using an interlibrary loan service with abroad.

The nature and spirit of Serbian academic librarianship is the international one. The literature on the economic development is being acquired in Serbian and foreign languages, mostly in English. The aggregated data bases which are being retrieved and can offer materials on the economic development are the international ones. Online resources are widely available to the academic library users in Serbia. Interlibrary loan service with abroad is also available to the users in Serbia.

Except that, the professional and scientific papers on the economic development written by the researchers from Serbia are being published regularly in local, as well as in international periodicals. In addition, the monographies on the economic development written by the authors from Serbia and abroad can also be found in the collections and the repositories of Serbian academic librarianship. Social Sciences Citation Index is being used regularly in order to find suitable materials for the professional needs of library users. In addition, researchers in social sciences need to know whether they are cited in leading professional and scientific journals in the world.

REFERENCES

[1] The „Svetozar Marković“ University Library in Belgrade, www.unilib.rs (Access: February, 2019)
[2] Institut informacijskih znanosti Maribor – IZUM, www.izum.si (Access: January 2019)
[3] Miodrag Brzaković, Svetomir Minić, Tomislav Brzaković, Branislav Jakić, The Innovation support of the sustainable development, Inovacijama do održivog razvoja, Beograd, 7. Decembar 2017, Univerzitet Privredna akademija u Novom Sadu, Fakultet za primenjeni menadžment, ekonomiju i finansije (MEF), Beograd, p. 1. (Serbian)
[4] National Library of Serbia, www.nb.rs (Access: February 2019)
[5] Slavoljub Milovanović, Elektronsko učenje – tehnologije, prednosti i nedostaci. U: Elektronsko učenje na putu ka Društvu znanja, Beograd, Univerzitet Metropolitan, 2010, str. 37. (Paper in a conference book)
[6] Vesna Župan, Focusing on the human resources in academic librarianship: an outlook from Serbia, Library management, Bingley, United Kingdom, 2012, Vol. 33, no. 3, p. 171.
[7] Univerzitetska biblioteka „Nikola Tesla“ u Nišu, www.ubnt.ni.ac.rs (Access: February 2019)
[8] Univerzitetska biblioteka u Kragujevcu, www.ub.kg.ac.rs (Access: February 2019)
[9] The Matica Srpska Library, www.bms.ns (Access: February 2019)
[10] Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, https://openaccess.mpg.de/Berlin-Declaration (Access: January 2019)
[11] Open Access. Max-Planck-Gesellschaft, https://openaccess.mpg.de/Berlin-Declaration (Access: January 2019)
[12] E-Theses of The University of Belgrade, eteze.bg.ac.rs (Access: February 2019)
[13] E-Theses of The University of Kragujevac, eteze.kg.ac.rs (Access: February 2019)
[14] E-Theses of The University of Niš, eteze.ni.ac.rs (Access: February 2019)
[15] DART-Europe E-theses Portal, www.dart-europe.eu (Access: February 2019)

HUMAN FACTOR AND METHODS OF GOVERNMENT AND BUSINESS MANAGEMENT

Nadia Marinova[1]

DOI: https://doi.org/10.31410/EMAN.2019.41

Abstract: *Effective government is built on the active use of the types of management methods. There is also a positive effect from their application in business regulation. Different methods are applicable in all stages and stages of management. The methods are interrelated and interact, so in different situations one method can take notice and the rest assume a secondary supporting role. State and business management is related to the management of many people. A person's invoice is bound by a number of exceptions, which in turn categorizes and differentiates the methods of managing people from the general set of management methods.*

Keywords: *Methods of management, business, regulation, government.*

1. TYPES OF METHODS AND THEIR APPLICATION

Methods of government and business regulation of people are distinguished from the general aggregate of management methods in that they promulgate their action to many people; they are implemented in co-operation with the laws, norms and powers granted to the state and it`s guides, which and are, in the present case, acting in their capacity as subjects of management on behalf of the State. Methods of government management are required to ensure the establishment and regulation of economic relations, the direction of economic processes for the benefit of public purposes, to maintain the law and the order of use of the resources and instruments of influence that are inherent in the state power.

The different management methods differ in the manner of formation, the content and nature of the implementation of the management impacts, the ways of influencing the people of the bodies and the persons who have the impact, and the elaboration and implementation of managerial impacts. The main methods of government and business regulation are subdivided into: administrative, economic and socio-psychological.

1. Administrative methods are based on the rights of the subject of governance - the state administration, state authorities to dispose and to exercise controlling influence over the object of governance in the form of legally enforceable laws, decrees, decrees, ordinances, instructions and other directives. Administrative-management methods of governance are based on coercion, prohibitions, restrictions. The object of management is obliged to execute the instructions of the subject regardless of his or her own desires, and in case of non-fulfillment the guilty persons are punished.

2. Administrative-government methods of government should not be linked only to centrally managed economies and also to direct planning. The administrative methods, in a variety of forms, are inherent in the market economy, with the difference that its command principles do not appear on such a large scale and in such a manifest form as in the one-center economy.

1 New Bulgarian University, 21, Montevideo str., Sofia, Bulgaria

In every organized economy there are state laws, rules, norms, positions, instructions, spreading their impact on economic sites, processes and relations. Establishing and supporting state standards with strict adherence is also a manifestation of organizational and administrative management by state authorities.

Strict prohibitions and restrictions are part of the authorities, introduction of compulsory payment of taxes, duties, deductions from legal and natural persons are signs of disposition, direct management. Although taxation is an economic impact and contains elements of incentives in one direction or another, its compelling nature indicates the administrative and administrative nature of governance.

At the macroeconomic level, in the conditions of a market economy, an instrument of administrative and administrative management becomes the state economic and financial plans, programs and budgets to the extent that they are obligatory or obligatory in nature, requiring implementation by the bodies, the organizations to which it is the responsibility for complying with the decisions adopted.[2]

At the microeconomic level, a typical manifestation of state administrative management is the state's obligations towards economic operators and restrictions related to their economic activity. There are a number of instructions, rules and norms for economic behavior, order and forms of economic accountability.

The main sign of an administrative method of government is the obligation that the circle of persons to whom it is addressed perform the management influence from the management entity. Its binding nature is the possibility and the right to apply some or other forms of coercion to bodies, organizations, persons who do not comply with established prescriptions, using sanctions, fines and penalties in a variety of forms. At the same time, the state is obliged to guarantee and protect the performers of its will from excessive risks, catastrophic consequences, conditioned by strict compliance with the state decisions.

In every organized economy there are state laws, rules, norms, positions, instructions, spreading their impact on economic sites, processes and relations. Establishing and supporting state standards with strict adherence is also a manifestation of organizational and administrative management by state authorities.

Strict prohibitions and restrictions on the part of the authorities, the introduction of compulsory payment of taxes, duties, deductions from legal and physical persons are signs of active management. Taxation is an economic impact and contains elements of incentives. Its forced character testifies to the administrative-administrative nature of government.

At the macroeconomic level, in the conditions of a market economy, the state economic and financial plans, programs and budgets become a way of administrative and administrative management. They are binding in nature, pre-requiring implementation by organizations that are entrusted with the responsibility to comply with the decisions they have taken. At the microeconomic level, state administrative management is the state's obligations towards the economic entities and restrictions related to their economic activity. There are many instructions, rules and norms for economic behavior, order and forms of economic accountability. A major sign of an administrative method of

[2] Turner, J.R., *The handbook of project-based management: leading strategic change in organizations*, New York: McGraw-Hill, 2009.

government is the obligation for certain people to implement the management impact. It is the duty and the right to apply some form of coercion to organizations, persons who do not comply with established prescriptions, by using sanctions, fines and penalties in a variety of forms. At the same time, the state is obliged to guarantee and protect the performers of its will from excessive risks, catastrophic consequences, conditioned by strict compliance with the state decisions.

Administrative methods have certain advantages and disadvantages. They are manifested by how, by whom and when the method is applied.

Administrative governance is necessary and useful in cases where there is no tradition of order and efficiency in society. It is also needed when making decisions in emergency situations that do not allow deviation from the set action program. Administrative methods are unavoidable if it is necessary to ensure that the law is enforced by the legal rules established by the state, to punish violations by individuals and business entities.

The negative side of administrative methods of government is that they limit the possibility and creativity of business activity by its subjects by turning them into „robots" that implement government directives or imitate their implementation. Moreover, the realization of the power positions in the form of, restrictions, rules imposed by the state on the participants in the economic processes leads to the absence of their own interests in the execution of such commands. This causes internal resistance, resulting in a low level of compliance. After all, there is low efficiency in economic activity and low use of resources, unsatisfactory quality of produced goods and services.

Worldwide processes of democratization and liberalization of the economy are taking place. They affect government and attempts to restrict the use of command and command, remain part of the government. This is because the state is always a means of coercion, and sometimes of violence. On the other hand, the perceptions of the state as a participant in the conditions of a liberalized market economy as an observer pursuing the preservation of state values and observance of the laws established by that state seem primitive and even naive.

Administrative methods need to be applied at all levels of government.

At the world economy level, they are used by international organizations and governments of different countries to ensure compliance with international foreign economic rules. The prescriptive methods of managing the world economy are also needed to respect economic security and reduce crimes in the economic and financial-banking sphere.[3]

At the level of the country's economy, different sectors and regions use administrative methods in the form of mandatory requirements, restrictions that are fixed in state regulations. They are implemented through sanctions that punish for breach of the rules of economic behavior established by the state.

Let's look at some of the basic ways through which the state has an administrative impact on the subjects of the state and non-state sectors of the economy.

3 Spiess, W.; Felding, F., *Conflict prevention in project management: strategies, methods, checklists and case studies*, Berlin: Springer, 2008.

2. STATE ASSISTANCE FOR ADMINISTRATIVE IMPACT

The legal coercion is carried out by the requirement for mandatory compliance and enforcement of the state legislative and regulatory acts by the subjects to which they are directed. The State requires that the laws that have a direct impact be determined and which specify who and how is entitled to engage in economic activity and what conditions to observe. To this end, administrative and judicial means are foreseen to force the law to comply. These methods of forcible state influence are spread by macro-micro-economic objects and processes. On the basis of the laws of the country, additional state acts are issued, which clarify the requirements of the laws in the form of regulations, instructions and others.

The state defines them as organizational-legal forms of governance and acceptable ways of managing resources.

Administrative coercion, as an element of government, manifests itself in the form of directives that are contained in such disposal documents as decrees, decrees, orders, decisions, prescriptions, powers.

State administration is supported by the right of the owner to dispose of his property, as well as by the principle of subordination in the administration, according to which the lower administrative departments of the state are obliged to implement the directives of the supreme departments. One of the forms of state administration is the disposition of state financial resources, budget funds, state treasury and gold-currency reserves.

The state applies a general forcible seizure of a portion of wealth belonging to legal and natural persons in the form of taxes, customs duties, obligatory payments, and others. To justify this, the use of these means to satisfy state, public needs is a coercive effect. This gives tax a form of public contract between the state and the citizens.

The unconditional state requirements for observing the state standards, rules and norms in carrying out the economic activity are provided in instructions approved by the departments in the state power. The state bans and restrictions for certain types of economic activity can be also taken into account. These are prohibitions on publicly harmful or criminal activity and restrictions on monopoly, export and import quotas, restrictions on the import and export of foreign currency and the determination of the minimum wage.

Another way of direct government is the established administrative and legal responsibilities for illegal actions and violations of laws. The type and amount of the penalties, sanctions imposed on individuals and legal entities by state departments of the judiciary and the executive are determined by civil and criminal law. As a part of this mode of management, a partial or total prohibition of activity, bankruptcy, bankruptcy of organizations, confiscation of property, fines, dismissal of civil servants, deprivation of privileges, etc. are the direct measures.

The administrative procedure of management also refers to the permit documents, decisions, actions of the state authorities. They take the form of licenses, patents, affirmation of statutes and regulations for organizations, issuance of state certificates, certificates, revocation of decisions, withdrawal of permits documents, and more.

At all levels of business government, administering administrative impacts has the task of increasing the quality of management performance, their predictability for departments and decision-makers.

The methods of the economic stimulus group rely on the existence of material interests that determine the interest of participants in a particular activity. The subjects of various types and forms of economic activity are motivated by the extent to which the results of their activity will be supported, rewarded with material and satisfying their interests and plans. This makes the economic stimulus a universal method of management. It is based on the motives and interests of people and organizations, and provokes economic interest in the subject of governance to implement the management impact. The influence of the management institutions on the sites that are subordinated to them is through the application of economic incentives. It is manifested in the form of such incentives as increasing wealth and financial status, increasing incomes, profits, various forms of rewards, privileges, reducing constraints, additional resources, expanding economic freedom, property values. The economic impact is not only based on positive incentives, but also on anti-incentives in the form of fines, monetary and property sanctions, deprivation of privileges.

3. STATE ECONOMIC INCENTIVES

State economic incentives by nature are closely related to administrative methods. In other words, the state determines the system of economic incentives and how to implement them. They are then transformed into a form of government and regulation that is subordinated to market mechanisms for motivation.

Under the conditions of the economic management methods, the centralized administrative impact on the vertically „top-down" loses its decisive importance. The low-ranking units in the economy are given the right to make their own managerial decisions. Prerequisites for transition to self-governing economic sites are created. The laws governing economic relations take the character of not strict directives, but of rights, permits, conditions of management, ways of stimulating. Thus, the restrictions and obligations coexist with fines and penalties for violations of established rules and norms.

The difference between economic and administrative management methods is that they mean a transition from „vertical" management to „horizontal" governance. This means that in the system of state administration and regulation of the economy the free contractual relations are significantly increased, the assumption of equal obligations as economic entities whose degree of dependence on the state is substantially reduced. The state as a subject of economic activity builds its relations on a contractual basis, on the principle of equality, and assumes responsibility for fulfilling the commitments.

At the same time, it would be wrong to reduce the role of the state to the role of all other business entities. The place and role of the state in managing and regulating the market economy, under the conditions of applying management methods based on material interest, are more significant than other management entities. The reasons are as follows:

First, only the state defines the most common, binding for all economic actors, normative terms of relationships, called rules of „economic game".
Second, the state is the richest, most powerful, most resource-assured participant in economic activity.

Third, the state has an „administrative resource" that significantly exceeds the same resource of other actors.

By their very nature, stimulation methods are called economically in the sense that they satisfy the material needs and interests of individuals or groups of people. The name „economic management methods" used with regard to material stimulation methods is not quite correct because each method of managing economic processes and relationships can be called economically because it is directed to objects of economic nature. In this sense, the method of material stimulation is economically based on the fact that it is based on the economic interest and the use of economic motives.

Adherents of economic methods of management and regulation of the economy consider the normative nature of the state as a subject of government. With regard to other actors in economic activity, it is also understood as unacceptable violence, deprivation of the right to freedom of action, interference with the internal affairs of the business site. If the state uses the economic management methods and influences the participants in the economic activity with the stimulation methods, the situation changes and the state become a barrier but an initiator of free market relations, supports them by correcting the defects of the market system, competition. Moreover, the state is able to stimulate market processes by using its own resources, state resources.

The state can apply the methods of economic stimulation and create an interest in the economic entities, transform the external impact into an act of the own will of the participants in the economic processes. Participants find their own internal motives, desire to act in harmony with the decisions of the state authorities, with state rules of economic behavior in the name of their own interests.

The most important economic stimulators used in the practice of state regulation of the economy are tax incentives, shareholding and privatization, concession, state funding, budget financing, state procurement, government services, price regulation, protectionist measures and social insurance.

Economic stimulus methods are highly flexible, they have the potential for rapid adjustment, they provide a link between business outcomes and the amount of material wages or punishment depending on the outcome. In this sense, economic methods are an attribute of situational, adaptive management.

The efficiency of governance, using the means of economic stimulation, is obviously higher. This depends on the degree of use of incentives that are related to the life goals and interests of those organizations and people targeted by a method.

The advantages of economic stimulus methods, compared to administrative methods, are perceived much more positively than the objects of their activity. The economic methods are not as bureaucratic as the methods of administrative punishment. Under the conditions of economic governance methods, the function of state units is shifted from the field of coercion to clarifying the objectives of the activity and the expected results. Its advantage is to provide support and encouragement.
Economic methods of government should not oppose administrative methods. First, in each particular situation, it is necessary to decide which methods should be chosen, whether they are interchangeable and to what extent it is possible to combine them. Second, despite the existence of a certain difference, these methods are closely related and cannot exist completely separated from one another.

Along with the administrative and economic methods examined to date in the management of the economy, a third group of management methods has been used which has been called the socio-psychological methods because they are based on the social psychology of the people, their public morality and the psychological predisposition to certain types of behavior. They argue about people's psychological attitude towards the state and civil debt. These methods are also called moral-psychological because of their close connection with the moral qualities of the participants in the economic activity.

4. SOCIO-PSYCHOLOGICAL METHODS FOR MANAGING ECONOMY

In their content, the socio-psychological methods refer to the category of belief methods based on the moral and moral impact of the state on the psyche and the behavior of people, social groups and organizations in the process of their economic activity.

Every person is brought up and constantly formed a certain system of attitudes to labor, money, wealth, economic relations and rules of economic behavior. Everyone has certain preferences and priorities. In general, all of this is a set of principles and rules that can be called economic psychology.

People and social groups behave and act not only in accordance with the laws of the country but also under the influence of the state government units. If they are absent, the subjects act in accordance with their internal morality. This manifests in both economic and ordinary human behavior.

Socio-psychological methods of management are designed to influence individual and group consciousness and morals in order to persuade them to act in accordance with the goals and desires of the governing body. The effectiveness of this impact depends to a large extent on the upbringing that has been set in man and passed on from generation to generation. In this respect, a typical example is Japan, in which love and respect for labor, devotion to work is passed from childhood. The Japanese worker is able to voluntarily give up leave if the interests of the company require so. It is characterized by profound personal responsibility to the results of his work, such as quantity and quality. Respect for labor and the state are also characteristic of German workers.[4]

The socio-psychological methods of management are based on the principle of mutual understanding and respect, cooperation in relations between the state and the citizens. Methods of conviction most closely correspond to a democratic, liberal style of government that avoids direct coercion and violence against people. Such an impact is more characteristic of the management processes in the lower units of the production process. There the economic relations are manifested in direct contacts between managers and performers. These methods are sufficiently effective in conditions where economic activity is not only about fulfilling a task but requires self-initiative, a creative approach and a sense of personal responsibility.[5]
It is a fallacy in many countries, especially those in transition to market management mechanisms, that socio-psychological methods in the government of the economy are of low applicability. The blame for this is mainly in the state, which does not care to teach childhood economic morality and respect for work as the main source of existence for everyone. Because of this, people are increasingly staring not in themselves, but in the state represented by corrupt

4 Lynn Crawford, J. Brian Hobbs, J. Rodney Turner. *Project Categorization Systems*. PMI,2005.

5 Gray C.F., Larson E.W. *Project management. The managerial process*. McGraw. Hill International Editions, 2000.

officials, thus explaining all their problems. The behavior of state officials, obsessed with the pursuit of personal well-being, does not help to create and strengthen people's trust in the state.

Socio-psychological methods of government have common features with economic methods in that the state sometimes resorts to moral incentives in the form of incentives and awards of a non-material nature - gratitude, praise, symbolic reward, and so on. Such incentives are transformed into ruling signals, influences conducive to the development of such qualities that are highly praised by the state. In many cases, moral incentives prove to be more effective than material, monetary ones. This is because they satisfy the needs of people by publicly recognizing the value and importance of their work.

The principal feature of socio-psychological methods of management is that the effect of their action depends on the type of personality. For the effective implementation of these methods, it is necessary to use the means of belief and moral impact, depending on the people to whom they are directed. It is necessary to assess the choice between the individual or group effects, the choice of one or other methods of impact, the nature of the possible feedback.

In the real practice of government, the state seldom resorts to the use of only one of the methods. It is possible within a single government act to use a particular method together with other methods. In other words, one method will always be a leader and others will be used to enhance its impact.

5. CONCLUSION

The right choice and the consistent exercise of management methods results in people from the state institution or business. The application of management methods is good practice, motivates and creates a positive sense of the right influence of the government. The long practice of the methods creates a routine in their use and sets the correct norms in their interaction. In the management of state institutions and businesses, through management methods there is a balanced daily load and a sense of proper development in this direction.

6. REFERENCES

[1] Marinova, I. N. *Upravlenie na proekti*. NBU: Sofiya, 2012.
[2] Korotkov Э.M. *Antikrizisnoe upravlenie.* M. 2000.
[3] Kleyner G.B., Tambovtsev V.L. *Predpriyatie v nestabilynoy эkonomicheskoy srede: risk, strategii, bezoposnosty.* M. 1997.
[4] Gray C.F., Larson E.W. *Project management. The managerial process*. McGraw. Hill International Editions, 2000.
[5] Lynn Crawford, J. Brian Hobbs, J. Rodney Turner. *Project Categorization Systems*. PMI,2005.
[6] Spiess, W.; Felding, F., *Conflict prevention in project management: strategies, methods, checklists and case studies*, Berlin: Springer, 2008.
[7] Turner, J.R., *The handbook of project-based management: leading strategic change in organizations*, New York: McGraw-Hill, 2009.

THE FRANCHISE AGREEMENT TERMINATION WITH JUSTIFIED REASONS

Ayşe Arat[1]

DOI: https://doi.org/10.31410/EMAN.2019.49

Abstract: *Nowadays, developing commercial life has led companies to develop new methods to enter new markets and meet the expectations of consumers. One of these methods is the franchise system. The system first became popular in the United Kingdom and then in the US and other countries. Franchise agreements generally do not have a legal regulation in the countries where this system is applied. The contracts between the parties form the legal relationship. Within the framework of this relationship, franchisee takes advantage of the brand's recognition, competitiveness, marketing and advertising advantages. The franchiser has the opportunity to transport the product of the same standard to a wider marketing network with low cost and speed. Franchise agreement creates a continuous obligation relationship between the parties. Therefore, the emergence of justified reasons may result in the termination of the contract. The parties may have arranged the reasons for the termination of the agreement between them. Even if no arrangement is made, the nature of the relationship may justify the reason for such an end. Because the franchise agreement establishes a relationship of trust between the parties and the damage of this relationship may make the contract irresistible. In our study, first of all, general information about the legal nature of the contract and the rights and obligations of the parties is given. Then, the conditions for the termination of the justification were evaluated and it was discussed how the situations could lead to this.*

Keywords: *franchise, agreement termination, justified reasons.*

1. INTRODUCTION

The franchising system is a system that has become widespread throughout the world after World War II and allows the goods produced to reach a wide range of customers with a definite standard. The two parties of the contract are the franchiser and the franchisee. The franchiser is able to offer its goods to wide range of customers with the same quality, and the franchisee has the opportunity to benefit from its competitive advantages as being part of a well-known system without losing its independence. It is also possible to terminate the contract, which is profitable and advantageous for both parties, with reasons for the normal termination (the expiration of the contract, the death of the parties, among others) as well as the justified reasons for extraordinary termination. In practice, it is seen that the majority of the debates in franchise agreements in the court are related to the termination of the contract with justified reason. Thus, the termination of the franchise agreement with justified reason and its results have been investigated in this study.

2. DEFINITION OF THE CONTRACT AND ITS LEGAL NATURE

Franchising agreement is a contract that causes a continuous obligation relationship. The franchiser licenses the business system which includes production, operation and marketing available to the franchisee for a fee. In return for this, franchisee uses this system to carry out business, marketing and even production activities in its own name and account[2].

1 Selcuk University Faculty of Law, Turkey

2 Gürzumar, Osman Berat: Franchise Sözleşmeleri ve Bu sözleşmelerin Temelini Oluşturan Sistemlerin

The origins of the franchise agreement can be traced to the United States. In this respect, the contract used to mean the privilege given by the state to the individuals, and over time, it was used to express the right to use signage and exclusive sale in a specific region. Today's framework contract and the conception of equality between parties have settled in time[3]. It started to be used in European countries after the Second World War. TURYAP was the first example of franchise in the form of real estate chain in Turkey, in 1985[4]. McDonald's, one of the world's largest franchisers, entered Turkish market in 1986[5].

Today, this system is widely used by both domestic and foreign companies because there are many advantages in terms of franchiser and franchisee[6]. First of all, the franchiser is advantageous in terms of marketing. The franchiser takes advantage of the knowledge of the franchisee, who knows the market and the region better and thus the business reaches a wide range of marketing opportunities in a short time and costs of the organization and personnel are saved. The franchise fee paid by the franchisee and the cooperation it provides increases the profitability of the franchiser. The franchisee takes the advantage of joining a recognized and reliable system with ready customers and organization. Thus, the franchisee has the opportunity to sell by benefitting from the competitive advantage and the commercial advertisement of the franchiser without the need to spend much time.

Although the franchise agreement is a widely used contract, it is not subject to legal regulation. For this reason, it is an innominate contract (atypical) contract. However, considering the general nature of the agreement, it is seen that it carries elements of the contracts regulated by law. Accordingly, elements from the contracts of sales, rent, service, agency, power of attorney and ordinary partnership are available in the franchise agreement[7]. However, some of the elements are similar to other innominate contracts, which are language, know-how and exclusive distributorship agreements[8]. Considering all these features, it can be argued that the franchise agreement has the character of a sui generis, innominate contract.

Hukuken Korunması, İstanbul, 1995, p. 10; Kırca, Çiğdem: Franchise Sözleşmesi, Ankara 1997, p. 19, 20; Ayata, Yeşim: Franchise Sözleşmesinde Tarafların Borçları, İstanbul 2015, p. 8; Eren, Fikret: Borçlar Hukuku Özel Hükümler, Ankara 2018, p. 969. Honsell, Heinrich: Schweizerisches Obligationenrecht Besonderer Teil, Bern 1995, s. 370; Serozan, Rona: Borçlar Hukuku Özel Bölüm, Temel Kavramlar, Kaynaklar ve İlkeler, Atipik Sözleşmeler, Satım, Trampa, Bağışlama Uygulama Çalışmaları, İstanbul 2002. s. 78; Şua, Mehmet: Franchise Sözleşmesinin Tanımına Yeni Bir Bakış, s. 61; Gümüş, s. 10; Aydoğdu/Kahveci, s. 30. The Supreme Court defines the franchise agreement as follows: "…long-term continuous contractual relationship between two independent parties, whereby a party, which owns the rights of a product or service, grants the second party the right to conduct the commercial business subject to the said rights by providing information and support with regard to the management and organisation of the business for a certain duration and under certain conditions and restrictions. The franchiser gives the franchisee the rights of a successful brand and its sales, distribution or operation rights for a certain price." Y.19. HD. 25.06.2001, 819/4917 (citing Ayata, p. 8).

3 Kırca, p. 4, 5; Gürzumar, p. 1, 2; Honsell, p. 369.

4 For detailed information see http://franchisingsistemi.blogspot.com; http://www.franchiseturkey.com/icerikler/turkiyede-franchising-sistemi (Accessed 21.02.2019)

5 Many of the international franchise chains operate in Turkey. These chains generally enter Turkish market in two ways. The first, they grant a company the franchise for whole Turkey and allow it to make sub-franchising agreements. Second, they makes franchise agreements in Turkey through a company which they have partnership (Gürzumar, p. 6).

6 For more information on these advantages, see. Gürzumar, p. 4, 5; Kırca, p. 12 ff.

7 Honsell, p. 369; Eren, p. 970; Serozan, p.78; Kırca, p. 61 ff.

8 Honsell, p. 369; Eren, p. 970; Serozan, p.78, 79; Kırca, s. 68 ff.

3. FEATURES AND ELEMENTS OF THE AGREEMENT

A. Features

The franchise agreement is a contract that binds each party to certain obligations; they have principal obligations to perform[9]. It is also a voluntary contract. Since it is established with mutual and interdependent declarations of will of the parties, it has a consensual nature. Another important feature of the contract is the continuous obligation relationship. The contract gains this feature by the continuity of primary performance obligations of the parties throughout the contract period[10].

Another feature of the franchise agreement is that it is a framework contract. The framework contract is "a general agreement that describes the rights and obligations of the parties to make complementary contracts afterwards"[11]. Thus, after the parties have concluded the contract that outlines their relations, they can make complementary contracts in accordance with these principles[12].

B. Elements

The elements of the contract can be listed as follows; establishment of a system, entering to this system for a fee, establishing cooperation between the parties and agreement of the parties on all these issues. Although the contents of these elements change according to the type of franchise agreement, it is generally accepted that these are the main elements[13].

The parties maintain their independence in this contract. This element is especially important for franchisee because the element of independence separates franchisee from attorney, agent or commission agent[14].

4. OBLIGATIONS OF PARTIES

The main obligations of the parties are also the elements of the franchise agreement. Other factors include the parties' will, the sector they are involved in, the risks they are exposed to, the insurance conditions they make. However, it is not possible and necessary to count all of these elements as they do not have the nature of primary performance[15]. The parties are obliged to protect each other's interests and loyalty and maintain secrecy[16], not to compete and to report violations by third parties against the elements included in the system within the duty of loyalty which continues within the contract period and even after the contract expires[17].

---

9 Eren, p. 971; Kırca, p. 20.

10 Gürzumar, p. 26; Kırca, p. 21; Eren, p. 971.

11 Eren, p. 972. For extensive information on framework contracts, see. Barlas, Nami, Çerçeve Sözleşme Kavramı ve Çerçeve Sözleşmelerin Özellikleri, Prof. Dr. Erdoğan Moroğlu'na 65. Yaş Günü Armağanı, İstanbul 2001, p. 807 ff.

12 Kırca, p. 22; Eren, p. 972; Aydoğdu/Kahveci, p. 31.

13 Eren, p. 972; Kırca, p. 20 ff.

14 Eren, p. 972; Kırca, p. 24, 25.

15 Gürzumar, p. 15-16.

16 For trade secrets and storing in the franchise agreement, see. Sulu, Muhammet, Ticari Sırların Korunması, İstanbul 2017, p. 125, 126.

17 Gürzumar, p. 17; Ayata, p. 110.

A. Franchiser's Obligations

The main obligation of the franchiser is to grant the franchisee the production, operation and marketing system. This obligation constitutes the primary performance obligation of the contract. The other basic obligation of the franchiser is to provide all kinds of assistance (consultancy, training, supply, etc.) that the franchisee needs to make the most efficient use of the system[18].

B. Franchisee's Obligations

The main obligations of the franchisee include the obligations to use the contractual goods or service on their behalf, support, use the intellectual and industrial elements in the system, to pay and to pay for the production, comply with the principles of production, marketing and operation of the system and pay. All these obligations constitute the primary performance obligation of the franchisee. All these obligations other than payment are continuous, and we can see there is one-time payment in some contracts. Even in some contracts, the fee is hidden in the price of mandatory goods (indirect fee)[19].

C. Termination of Contract

There exist several reasons for the termination of the contract. These are usually classified as automatic termination, termination by ordinary and extraordinary causes. As our study is related to termination by justified reason leading to extraordinary termination, general information about other reasons is given.

I. Automatic Termination

The franchise agreement may terminate automatically by some reasons. These reasons, which do not require a declaration of termination, are considered as causes such as death, loss of license and bankruptcy of the parties[20].

In such a contract based on the trust relationship between the parties, circumstances such as death, loss of license should, in principle, lead to automatic termination of the contract[21]. However, the parties may decide that the contract will not terminate even in these cases. Death and loss of license in the franchise agreements, where personal qualifications matter, terminate the contract. In cases where personal qualities are not important, the system is predominant and the successors want to continue the system, death and loss of the license should not end the contract[22]. The bankruptcy of one or both parties leads to the same result.

---

18 Gürzumar, p. 11, 12; Kırca, p. 109 vd.; Eren, s. 979 vd.; Akıncı, p. 206, 207; Aydoğdu/Kahveci, p. 32; Şua, p. 66 ff. For details on the franchiser's obligations, see. Ayata, p. 59 ff.

19 Gürzumar, p. 12-15; Kırca, p. 145 vd. ; Eren, p. 981 vd. ; Akıncı, p. 207, 208; Aydoğdu/Kahveci, p. 33; Şua, p. 76 ff. For details on the franchisee's obligations, see. Ayata, p. 98 ff.

20 Gürzumar, p. 174; Honsell, p. 371; Eren, p. 986; Kırca, p. 185.

21 In the agency agreement of the Commercial Code, due to its reference to the power of attorney contract, this result is also reached for exclusive distributorship and franchise agreements which are similar employment contracts. Tandoğan, I/1, p. 58; Gürzumar, p. 174; Kırca, p. 186.

22 Gürzumar, p. 174; Kırca, p. 186; Akıncı, p. 212.

II. Normal Termination

The most typical cause of normal termination is the expiration of the period. If the franchise agreement is made for a certain period of time, the expiration of this period will automatically terminate the contract. However, it is generally possible to decide on the renewal of the contract at the end of the period if the parties wish to do so[23].

It may also be decided to terminate the contract through normal termination, although not much in practice. This is possible if there is such a clear provision in the contract[24]. When there is an explicit provision in the contract but there is no provision on how to use the right of normal termination, the conditions of the concrete case, especially whether the investment of the franchisee are amortized, and whether enough time is allocated for the termination notice should be taken into account[25]. Thus, a six-month period of termination in accordance with the interests of both parties regarding the provisions on the termination of the ordinary partnership is adopted in Swiss and Turkish law[26].

III. Extraordinary Termination

Extraordinary termination may be defined as “the effective termination of a definite or indefinite period of the permanent obligation relationship with justified reasons before and after the period[27]. In the continuation of this kind of termination obligation relationship, especially unpredictable causes occur and this situation makes the relationship unbearable for the parties[28].

Extraordinary termination is a result of the continuous contract of the franchise agreement[29] because such a relationship may be unbearable. For this reason, such termination is possible even if the parties have not inserted such a provision in the contract and even if they forbid it. The fact that the contract has been made for a certain or indefinite period does not matter in terms of extraordinary termination. Accordingly, it is not necessary to act in accordance with certain termination periods. Termination with justified reason is an extraordinary way of termination.

5. TERMINATION WITH JUSTIFIED REASON

“All conditions that make it impossible to continue to the contract under good faith” until the termination period or the termination of the contract are justified reasons.[30] With the emergence of such conditions, the contract may be terminated with justified reason. The rightful termination is a cause of extraordinary termination and allows for the termination of contracts which generate continuous obligation relationship, even if there is no such arrangement in the law or contract[31]. Therefore, the

23 Gürzumar, p. 169; Kırca, p. 173; Eren, p. 984; Akıncı, p. 211.

24 Gürzumar, p. 169; Kırca, p. 174; Akıncı, p. 211.

25 Gürzumar, p. 171; Kırca, p. 176; Eren, p. 985.

26 Gürzumar, p. 170; Kırca, p. 178; Eren, p. 985.

27 Seliçi, p. 156; Kırca, p. 181;İşgüzar, p. 152; Altınok Ormancı, p. 93; Seçer, p. 1.

28 Altınok Ormancı, p. 94; Seçer, p. 1.

29 The fact that the franchise agreement is a contract of employment makes it possible to apply the rules regarding the termination of the service and agency contracts regulated by the law with justified reason. Kırca, p. 1065; exclusive distributorship, İşgüzar, p. 154. The Swiss Federal Court’s decision is in this direction (BGE 118 II 165) (citing, Kırca, p. 181, dpn. 1065). Extraordinary termination with justified reason, should be deemed to exist in contracts that create a continuous obligation relationship that is not regulated by law. Seliçi, p. 163, 202; İşgüzar, p. 154.

30 Seçer, p. 1; Seliçi, p. 157; Altınok Ormancı, p. 133.

31 Seliçi, p. 204; Seçer, p. 1.

trust relationship between the parties is deteriorated due to a number of subsequent reasons, and if maintaining the contract is not expected by the parties under good faith, termination with justified reason is possible[32].

It is difficult to determine what reasons would be justified beforehand[33]. The difference of the parties, the business lines of each relationship, the provisions of the contract, and the unpredictability of many others are some sources of this challenge. However, franchise contracts often have clauses of termination for justified reasons. In some of these regulations, generally justified reasons are mentioned, in some others examples such as one party's loan default, committing crime, not reaching the agreed turnover are given[34]. In some other arrangements, not fulfilling the principal obligations or violating the relationship severely is mentioned, but what is to be understood is not explained separately[35]. In fact, this is not surprising because it is not possible to predict precisely what kind of justified reason can arise in a continuous relationship.

Arrangements related to the justified reason are regulated whether generally or as examples and not regulated at all in the contract, the reason resulting in the termination must be of particular importance, objectively and subjectively. Objective reasons relate to the fact that "the situation entails the party applying for the justified reason not to allow to end the period in the case of a fixed-term contract according to good faith or to continue until the moment of termination in the case of an indefinite term contract"[36]. Subjective reason related the fact that "it is truly unbearable to continue the contract for the party who terminates the contract"[37]. The objective reasons should be evaluated regarding the good faith, the subjective reasons should be evaluated according to the conditions of the concrete case[38]. However, if the reason is generally objective, the subjective factor is also fulfilled[39]. Therefore, in the interpretation of the situation as a justified reason, the good faith should be taken into consideration first, and then whether a reasonable and honest person with moderate intelligence under the same conditions would terminate the contract for this reason should be evaluated and finally whether the situation makes the relationship unbearable should be considered, whether it is arranged in the contract or not[40]. Termination should not be performed if the situation does not entail both objective and subjective reasons. For example, if the amount of turnover below the figure is significantly below the determined amount, and the main reason for this is that the franchisee does not perform its obligations properly should cause the termination in a contract with a provision that the contract will be terminated when the franchisee does not reach a certain sales turnover[41]. Although the turnover cannot be reached, the amount of the missing is small and the situation is a result of the effort of the obliged, it should not be accepted that a justified reason has occurred.

We have aforementioned that the situation that makes the relationship unbearable for one party according to good faith can be considered as justified reason. In this regard, the deterioration of trust relationship between the parties in such a way to affect the cooperation, the repetitive actions against obligation can be considered as a justified reason[42]. However, actions that cannot be con-

32 Seliçi, p. 156, 157; Kırca, p. 181; Seçer, p. 1.
33 Seçer, p. 1.
34 Gürzumar, p. 172; Kırca, p. 183; Akıncı, p. 211.
35 Gürzumar, p. 172
36 Seçer, p. 1; Altınok Ormancı, p. 139.
37 Seçer, p. 1.
38 Seçer, p. 1.
39 Seçer, p. 1; Seliçi, p. 158.
40 Seçer, p. 1.
41 Gürzumar, p. 174; Kırca, p. 184; Eren, p. 985.
42 Gürzumar, p. 172; Eren, p. 986.

sidered as affecting the realization of the purpose of the contract or which do not interfere with the trust relationship due to the individual nature should not be evaluated in this regard[43]. Otherwise, even disputes that can be settled independently need to be included in the justified reason, which is not a proper way. For example, non-performance or faulty performance is contradictory to the individual contract. Such situations do not need to be solved by the termination due to justified reason[44]. The continuity of such situations and the fact that the contract is unbearable due to the situation can be regarded as a justified reason[45].

The termination of the contract with justified reason shall not make a court decision mandatory. However, since there will be a conflict between the parties about the justified reason, the judge shall decide whether there is a justified reason for the extraordinary incident in the concrete case by using the discretionary power (CC. Art. 4)[46]. The judge shall express his/her opinion about the justification of the situation. If the reason is justified, the result is termination. In other words, the judge decides whether the contract is terminated or not terminated, but whether the reason is justified or not. If the reason is justified, no other legal conclusion should be made by termination[47]. The judgment should be based on an objective justification, but should also take into account all aspects of the concrete incident because a situation that is justified in a contractual relationship may not bear the same result in another relationship[48].

Justified reasons often arise with the faulty action of a party. However, this situation is not specific to a faulty action because the situation that makes the continuation of the relationship unbearable can be caused by an objective reason, not the fault of the parties[49]. For example, serious problems in economic life can lead to such a situation[50].

The emergence of justified reasons does not automatically terminate the contract. In addition to the emergence of the reason from the objective perspective, the party that asserts this reason must declare that it terminates the contract[51]. This statement must be made within a reasonable period of time after the justified reason has appeared. The declaration of a termination made much later than the appearance of the reason may make it difficult to evaluate these reasons as justified reasons and even be interpreted as the acceptance of these actions[52]. In other words, the fact that a long time has passed since the emergence of the reason may make relying on this reason contradictory to good faith. It is not obligatory to indicate the reason for termination in the declaration of termination. However, declaring the reason of termination is useful because it is important in terms of regulating the interests and debts of the other party[53]. The notification of termination shall explicitly include the will to terminate the contract. Without this will, only the notification of the right to ter-

43 Gürzumar, p. 173; Kırca, p. 182.

44 Gürzumar, p. 173.

45 Gürzumar, p. 173.

46 Gürzumar, p. 172; Kırca, p. 182; Eren, p. 985; İşgüzar, 157.

47 Seliçi, p. 187; Seçer, 1.

48 Seçer, p. 1.

49 Gürzumar, p. 171; Kırca, p. 182; Seliçi, p. 194.

50 Gürzumar, p. 173. Adverse opinion on the changes in the economic conditions do not lead to termination with justified reason in exclusive distributorship contracts, İşgüzar, p. 156. Here, it is also possible to think that the emergence of conditions that would lead to the adaptation of the contract (the unpredictable change in the initial conditions and the deterioration of the balance between the performance) would result in the termination of the contract as a form of adaptation. For the adaptation of the contract to the changing conditions and the termination of the contract in this framework, see. Arat, p. 185 ff.

51 Seçer, p. 1.

52 Seçer, p. 1.

53 Seliçi, p. 163; Seçer, p. 1.

minate the contract or the right of termination is not considered as the will of termination[54]. Despite the fact that the will of termination is notified to the other party, there may be dispute between the parties on the justification of the reason. For this reason, it is observed that the party wishing to terminate the contract with a justified reason has filed lawsuit in order to determine the justification of the termination[55].

The right to justify the termination of the contract is based on good faith. The party that continues to fulfill their contractual obligations or that uses the justified reason against the counterpart to obtain extra benefit in the contract should not benefit from the possibility of termination despite the fact that there are situations that are regarded as justified reason[56]. In such a case, although the justified reason emerges as an objective element, the unbearableness, which is the subjective element, does not occur. Instead of using the right to terminate when it is learned that an unbearable situation occurs and the situation produces justified reason, avoiding terminating the contract trying to afford advantage to its counterpart is against good faith.

6. THE RESULTS OF TERMINATING WITH JUSTIFIED REASON

The termination of the contract terminates the contract proactively. Although there is a justified reason to terminate, if normal termination is performed, the justified reason can no longer be used[57]. However, it is necessary to look at the case if it is found that the reason is not justified. When it is clear that the party wishing to terminate the contract with justified reason does not want to be bound by the contract, it is possible to regard the declaration of extraordinary termination as a normal termination if it is seen that the continuation of the contract is not beneficial for both parties. In the case of a franchise agreement, which is based on an intimate trust relationship, it may be useful to regard the situation in this way in most cases[58]. However, it can be accepted that the contract will continue to exist if there is no justified reason and the other party abuses it.

Since the termination with justified reason is an extraordinary way of termination, first, the consequential results, then, specific results in terms of franchise agreement should be examined.

When evaluating the general results, first of all, it should be examined whether there is a faulty party. If the faulty action of a party constitutes a justified reason for the termination of the contract, the other party may claim compensation from the faulty party. This compensation is a complete compensation, which covers the positive damages, which will bring the damaged person to the ordinary state within the contract period or at the normal termination of the contract[59]. However, if the other party does not have a fault in the emergence of the justified reason and especially if there is not an act that is contradictory to the obligations, the compensation may not be granted and if the concrete case justifies the conditions of a compensation, the compensation may be granted in accordance with the principle of equity[60].

---

54 Seçer, p. 1.

55 Y. 6. HD. 29.04.2013, 4469/7407; Y. 11. HD. 15.12.2016, 2015/13423, 2016/9607; Y. 11. HD. 21.02.2014, 2012/11173, 2014/3235; Y. 11. HD. 15.06.2015, 1673/8257; Y. 11. HD. 24.04.2015, 2014/16268, 2015/5724 Y. 11. HD. 14.04.2014, 2013/18290, 2014/7335 (lexpera)

56 Seçer, p. 1.

57 Seçer, p. 1.

58 Kırca, p. 185.

59 Seçer, p. 1.

60 Seçer, p. 1.

As to the special results related to the franchise agreement, first of all the franchisee should not use the intangible goods (name, brand, sign) of the contract and return other things given to him (prescription, drawing, graphics, customer list, advertising material, hardware tools, among others) to the franchiser with the termination of the contract. Likewise, the franchiser should keep the business secret revealed to it and know-how, if any, described in the framework of the contractual relationship after the contract. As a result of the trust relationship established between the parties during the contract, is the obligation to store confidential information continues after the termination of the contract. This is the case even if the confidentiality obligation is not regulated in the contract[61].

The prohibition of competition after the contract is a result of the obligation of the franchisee to protect each other's interests and the good faith[62]. The purpose of this is to prevent the franchisee from doing business in the same business sector and environment by using the know-how that is still owned by the franchisee and avoid customer loss. Thus, the provisions on the prohibition of competition are usually regulated in franchise agreements[63].

Another consequence of termination of the franchise agreement is the payment of customer compensation. Customer compensation is the compensation that the franchisee may demand from the franchiser after the termination of the contract in return for the expansion of the customer environment and increase in the sales. In practice, it is accepted in the doctrine and judicial decisions that such compensation may be claimed, which is a matter of fairness[64].

7. CONCLUSION

Franchise agreement is a framework contract that is widely applied in the world and creates a continuous obligation relationship. It is a preferred contract as it provides branding, sale and extension of market share with the parties that it turns into a part of the system.

Continuous quality of contract and the trust relationship created by the sharing of issues such as confidence, information, and marketing strategy between the parties requires that the contract may be terminated for a justified reason. If the reasons that may arise will affect the relationship and make it unbearable for the parties, it is necessary to accept the termination of the contract with justified reason.

Justified reason is the reason that negatively affects the contractual relationship objectively and subjectively. If the resulting cause is of the nature that affects the contract objectively and that makes the relationship irresistible for the parties, the party subject to it may terminate the contract. The justified reason may be caused by an act against the obligation, or even without the fault of one of the parties. Such termination is a termination which the parties may apply even if it is not regulated in the contract.

Termination of the contract bears a proactive result and the contractual relationship is eliminated. Accordingly, the party is obliged to give what they have received as part of the franchise system. Termination of the contract does not terminate obligations of confidentiality or non-competition

61 Gürzumar, p. 187; Kırca, p. 187.

62 Gürzumar, p. 175; Kırca, p. 190; Can, p. 58.

63 Gürzumar, p. 175; Kırca, p. 190; Honsell, p. 371; Can, p. 59.

64 Gürzumar, p. 176 ff. ; Kırca, p. 194 ff.; Honsell, p. 371; Serozan, p. 79; Yusufoğlu, s. 178-179. For assessment of the Federal Court's decision on the subject see. Öz, s. 169-173.

between the parties. It is also possible for the franchisee that has increased sales and customer base with a good performance to claim customer compensation from the franchiser after the expiration of the contract.

In the light of all these evaluations, the conditions, the current business line in question and the understanding in the business environment should be taken into consideration as concrete events in termination of the franchise agreement with justified reason and in such a contract where the element of trust outweighs, the possibility of termination with justified reason should be interpreted broadly. However, interpretations which may lead to abuse of this right should be avoided as well.

REFERENCES

[1] Akıncı, Şahin: Karşılaştırmalı Borçlar Hukuku Özel Hükümler, Türk-Kazak Hukuku, Ankara 2004.
[2] Altınok Ormancı, Pınar: Sürekli Borç İlişkilerinin Haklı Sebeple Feshi (6098 sayılı Yeni Türk Borçlar Kanununa Göre Sözleşmelerin Feshi), İstanbul 2011.
[3] Arat, Ayşe: Sözleşmenin Değişen Şartlara Uyarlanması, Ankara 2006.
[4] Ayata, Yeşim: Franchise Sözleşmesinde Tarafların Borçları, İstanbul 2015.
[5] Aydoğdu, Murat/Kahveci, Nalan: Türk Borçlar Hukuku Özel Borç ilişkileri (Sözleşmeler Hukuku), Ankara 2014.
[6] Barlas, Nami: Çerçeve Sözleşme Kavramı ve Çerçeve Sözleşmelerin Özellikleri, Prof. Dr. Erdoğan Moroğlu'na 65. Yaş Günü Armağanı, İstanbul 2001.
[7] Can, Ozan: Franchise Sözleşmelerinde Kararlaştırılan Sözleşme Sonrası Rekabet Yasağı Bağlamında Bir Yargıtay Kararının Değerlendirilmesi, Ankara Barosu Dergisi, 2014/I (http://www.ankarabarosu.org.tr/siteler/ankarabarosu/tekmakale/2014-1/2.pdf). (d.a.: 15.03.2019).
[8] Eren, Fikret: Borçlar Hukuku Özel Hükümler, Ankara 2018.
[9] Gümüş, Mustafa Alper: Borçlar Hukuku Özel Hükümler, Cilt I, İstanbul 2013.
[10] Gürzumar, Osman Berat: Franchise Sözleşmeleri ve Bu sözleşmelerin Temelini Oluşturan Sistemlerin Hukuken Korunması, İstanbul, 1995.
[11] Honsell, Heinrich: Schweizerisches Obligationenrecht Besonderer Teil, Bern 1995.
[12] İşgüzar, Hasan: Tek Satıcılık Sözleşmesi, Ankara 1989.
[13] Kırca, Çiğdem: Franchise Sözleşmesi, Ankara 1997.
[14] Öz, Kerem: Federal Yüksek Mahkemenin 5 Şubat 2015 tarih ve VII ZR 109/13 sayılı Kararı: Franchise Sözleşmesinin Sona Ermesinden Sonraki Denkleştirme Talebi, Antalya Bilim Üniversitesi Hukuk Fakültesi Dergisi, Cilt: 4, Sayı: 7, Haziran 2016.
[15] Seçer, Öz: Olağanüstü Fesih (LexPera Hukuk Bilgi Sistemi) (d.a.: 18.03.2019).
[16] Seliçi, Özer: Borçlar Kanununa Göre Sözleşemeden Doğan Sürekli Borç İlişkilerinin Sona Ermesi, İstanbul 1977.
[17] Serozan, Rona: Borçlar Hukuku Özel Bölüm, temel kavramlar, Kaynaklar ve İlkeler, Atipik Sözleşmeler, Satım, Trampa, Bağışlama Uygulama Çalışmaları, İstanbul 2002.
[18] Sulu, Muhammet: Ticari Sırların Korunması, İstanbul 2017.
[19] Şua, Mehmet: Franchise Sözleşmesinin tanımına Yeni Bir Bakış, Yeditepe Üniversitesi Hukuk Fakültesi Dergisi, Cilt: IV, Sayı: 2, Yıl: 2007.
[20] Tandoğan, Haluk: Borçlar Hukuku Özel Borç İlişkileri, C. I/1, Ankara 1985.
[21] Yusufoğlu, Fülürya: Denkleştirme Talebinin Kıyasen Uygulanması için Gereken Kıyas şartları Işığında Tekel Hakkı Vermeyen Sürekli Sözleşme İlişkilerine Uygulanması Sorunu, Bahçeşehir Üniversitesi hukuk Fakültesi Dergisi, cilt 11, Sayı: 137-138, Ocak-Şubat 2016.

POLITICAL CULTURE OF THE REPUBLIC OF SERBIA AS A BASIS OF THE STABILITY OF THE POLITICAL SYSTEM

Slobodan Petrović[1]
Andrija Blanuša[2]

DOI: https://doi.org/10.31410/EMAN.2019.59

Abstract: *The definition of culture, as well as the notion of political culture and its influence, has a broad interpretation. Especially since culture is considered to be a general concept that represents a set of individuals' behaviors, a set of moral principles, customs, and actions in one community. From a different perspective, it can be interpreted differently, but, as a political culture, it represents a set of all that can affect political institutions and institutions and give synergy between decision-makers and citizens. In this paper will be analyzed the cultural development of the states of Serbia as well as the vital factors that create a picture of the political culture of a state.*

Keywords: *culture, politics, states, stability, political culture.*

1. INTRODUCTION

The cross-section of the state of culture and its impact in society can be obtained by monitoring various data, such as the existence of the Ombudsperson, active and registered civil society organizations, the existence of cultural institutions, cinemas, theaters, radio and television stations, libraries, all those institutions which can enable citizens to declare their right, to apply democracy to action in society, to have a certain activity and to act on the political system. Also, the interpretation of the nation itself and the programs broadcast in the media can give an image of the interest and information of the citizens, which implies their participation in the political life. The level of education of the nation, as well as investment in science and research, has a lot to do with culture. Interpretation of different factors can lead to a cross-cutting of a society in one country from the aspect of culture. Society in the modern age, strives for democracy, which marks the full participation of citizens in decision making and the creation of a political system. Culture has a direct connection with all parameters both economically and socially. A high economic and social standard would mean that citizens have an umbrella institution dealing with the field of culture, as well as material and other possibilities to be consumers of cultural content.

2. DEVELOPMENT OF CULTURE IN THE REPUBLIC OF SERBIA AND ITS INFLUENCE ON THE POLITICAL SYSTEM

In the case of the Republic of Serbia, the Ministry of Culture and Information[3]*, whose scope of work is: „Development and promotion of culture and artistic creativity; monitoring and research in the field of culture; providing a material basis for cultural activities; development and improvement of literary, translation, music and stage creativity, fine arts and applied arts and design,*

[1] Faculty of Law Megatrend University - Belgrade, Serbia

[2] Faculty of Law Megatrend University - Belgrade, Serbia

[3] http://www.kultura.gov.rs/cyr/ministry The Ministry of Culture and Information of the Republic of Serbia, as a state administration body, has been educated and its scope is established by Article 15 of the Law on Ministries („Official Gazette of the Republic of Serbia" No. 72/12 and 76/13), date of accession: 06/12/2019. at 11.48 am

film and creativity in the field of other audio-visual media; protection of immovable, movable and non-material cultural heritage; library, publishing, cinematographic and music-scenic activity; endowments and foundations; public information system; monitoring the implementation of laws in the field of public information; monitoring the work of public companies and institutions in the field of public information; monitoring activities of foreign information institutions, foreign media, correspondents and correspondents in the Republic of Serbia; informing national minorities; registration of foreign information institutions and providing assistance to foreign journalists and correspondents; cooperation in the field of protection of cultural heritage, cultural creativity and information in the language and script of members of the Serbian people in the region; establishment and development of cultural-information centers abroad; creation of conditions for access and realization of projects financed from the funds of the pre-accession funds of the European Union, donations and other forms of development assistance within the competence of that ministry, participation in regional projects, as well as other tasks determined by law"[4], exists as an organ dealing with culture and information. Also, the position and scope of activities of the institution of the Ombudsman is defined by Constitution of Republic of Serbia[5],and by the Law on the Protector of Citizens[6], which among other things: „... is to permanently affect the respect of human freedoms and rights by the personal authority and reputation of the institution.*"[7] It is important to note that the Republic of Serbia has developed a system of support for civil society organizations, especially through the existence of the Office for Cooperation with Civil Society of the Government of the Republic of Serbia*, established by the Regulation on the Office for Cooperation with Civil Society[8] whose main goal is to support the development of cooperation between civil society organizations and government institutions, also: *„...The importance and role of the Office for Cooperation with Civil Society is reflected in the coordination of cooperation between Government institutions and civil society organizations in the process of creating and establishing clear standards and procedures for involving civil society organizations at all levels of the decision-making process."[9] Also, by definition: „Civil society is a political force that operates outside the institutions of the system, but with a clear goal of influencing public policies and in the direction of greater transparency, accountability and openness of the system towards citizens. Civil society is a type of social action that occupies space between the state, the economy, and the private sphere. The complex meaning and complex use of the term stems from the many roles of civil society organizations in social life, some of which are the most important: the development of a culture of civic activism and participation in social and public policies; putting pressure on institutions in order to represent the interests of different groups; development of philanthropy, philanthropic values and principles through the activities of associations and other civil society organizations in working with marginalized social groups."*[10] Organisations of the civil society, are practically the best example of the influence of culture on the political system and the development of the political system: „The number of

---

4 http://www.kultura.gov.rs/cyr/ministarstvo Министарство културе и информисања Републике Србије, О министарству, датум приступа: 12.06.2019. године, у 12.00 часова.

5 Устав Републике Србије, («Сл. гласник РС», бр. 98/2006) available online: http://paragraf.rs/propisi/ustav_republike_srbije.html датум приступа 12.03.14.10 часова.

6 Закон о заштитнику грађана («Сл. гласник РС», бр. 79/2005 и 54/2007). Available online: http://www.paragraf.rs/propisi/zakon_o_zastitniku_gradjana.html датум приступа: 12.06.2019. године, у 13.07 часова.

7 http://www.ombudsman.rs/index.php/o-nama/uloga-i-funkcija Омбудсман / О нама / Улога и функција, датум приступа 12.06.2019. године 13.05 часова.

8 Decree on the Office for Cooperation with Civil Society (Official Gazette 26/10).

9 http://civilnodrustvo.gov.rs/ Office for Cooperation with Civil Society, date of accession: 06/12/2019. at 13.27 PM.

10 http://civilnodrustvo.gov.rs. Office for Cooperation for Civil society/ Info Service / Civil Society, Date of Access: 13.06.2019th, at 15. 05 PM.

registered organizations, their active role in the process of policy making and the influence on the structures of government are directly related to the degree of democratization in society and the level of transparency of the institutions of the system.“[11]

3. PARTICIPATION OF CITIZENS IN THE CREATION OF POLITICAL CULTURE OF THE REPUBLIC OF SERBIA

It can rightly be said that the Republic of Serbia is moving rapidly towards the full participation of citizens, i.e., by setting up and training mechanisms that enable citizens to influence the political system from the aspect of culture. If we stop here with the interpretation of only some of the regulations guaranteeing the freedom of association, as well as the bodies present for the application of culture and information in practice, it is worthwhile mentioning certain statistical data, which will in the next chapters for other countries give a cross-section of the state of existence those institutions that are within the competence of the state, direct implementation in practice, through the number of registered and active civil society organizations, as well as the number of cinemas, theaters, radio and TV stations and libraries. According to the available data, it can be concluded that in the regulations of the Republic of Serbia, there is justification for providing support to citizens, the application of culture, political culture, while the available data provides a guideline that more and more work should always be done and in the next years the authorities and institutions of government need to apply scope of work more practice and citizens to enable greater participation and thereby enable a stronger and more powerful cultural influence on the political system. In the Republic of Serbia, civil society organizations make a total of 24,216 registered according to the data of the CSO Sustainability Index 2014. Serbia 18th edition - May 2015.[12] According to the Statistical Office of the Republic of Serbia, there are 121 cinemas[13], theaters[14], of which professional 29, amateur 47 and children’s 13, radio and TV stations 251[15], libraries altogether - 2694.[16]

4. CONCLUSION

On the basis of the conducted research, the following conclusions came to light: After a quarter of a century, the political culture of the Republic of Serbia was not sufficiently developed to be characterized by the creation of strong political institutions and a stable political system. They have similar internal and external problems with which they are not successful. The Republic of Serbia is under the strong influence of the international factor. Political stability of all three branches of government is not guaranteed by strong institutions, but by the „political elite” that leads the state, which is a serious socio-political anomaly of modern society. Economic independence is absent everywhere where the impact of the adoption of economic strategic annual plans is not carried out by the home state, but it is necessary to consult and comply with the regulations of international institutions (IMF example); social stability of the republic is closely

[11] Ibid.

[12] http://www.mc.rs/upload/documents/saopstenja_izvestaji/2015/indeks-odrzivosti-ocd-2014-izvestaj.pdf USAID, SUSTAINABILITY INDEX OF OCD 2014. SERBIA 18. EDITION - MAJ 2015 page 5, date of accession: 14.06.2019. at 16.45.

[13] Republic of Serbia, Statistical Office: http://www.stat.gov.rs/ date of accession: 06/15/2019. year, at 5:08 pm.

[14] Republic of Serbia, Statistical Office: http://webrzs.stat.gov.rs/, date of access: 15.06.2019. year, y 17:15 PM.

[15] Republic of Serbia, Statistical Office: http://www.stat.gov.rs/ date of access: 16.06.2019. year, y 14.56 PM.

[16] Republic of Serbia, Statistical Office: http://webrzs.stat.gov.rs/, date of access: 17.06.2019. year, y 18.22 PM.

related to political events and economic trends; it is realistic to expect a different picture than the one shown by the conducted research. In the end, the culture of one nation, one state is the face of these people, both in front of the citizens, institutions, authorities that exercise power, politicians, politicians, foreigners and international factors. The culture of one nation is an integral part of the identity of that nation, it is the core of which is left-wing or right-wing ideology (for example, the French bourgeois revolution, the Spanish civil war, etc.). The results of the research that have been obtained in this paper show a low level of development of political culture, although only the factors that are most compact and most commonly used in such types of research are taken as indicators. It is only if we were to talk about the educational mobility of young people or the degree of participation of young people (under the age of thirty) in the political life of the state, we would realize how much is still needed for the political system of the Republic of Serbia to develop, because it is the essence of national progress - investment in science.

REFERENCES

[1] http://www.kultura.gov.rs/cyr/ministarstvo The Ministry of Culture and Information of the Republic of Serbia, as a state administration body; its scope is determined by Article 15 of the Law on Ministries („Official Gazette of RS" No. 72/12 and 76/13), date of accession: June 12, at 11.48 am
[2] http://www.kultura.gov.rs/cyr/ministarstvo Ministry of Culture and Information of the Republic of Serbia, Ministry of Justice, date of accession: 06/12/2019. at 12.00.
[3] The Constitution of the Republic of Serbia („Official Gazette of the Republic of Serbia", No. 98/2006) is available online: http://paragraf.rs/propisi/ustav_republike_srbije.html date of accession 12.03.14.10 PM.
[4] 4. Law on the Protector of Citizens („Official Gazette of the Republic of Serbia", No. 79/2005 and 54/2007). Available online: http://www.paragraf.rs/propisi/zakon_o_zastitniku_gradjana.html date of accession: 12.06.2019th, at 13.07 PM.
[5] http://www.ombudsman.rs/index.php/o-nama/uloga-i-funkcija Ombudsman / About Us / Role and Function, Access Date 12.06.2019. 13.05.
[6] 6. Decree on the Office for Cooperation with Civil Society (Official Gazette 26/10)
[7] http://civilnodrustvo.gov.rs/ Office for Cooperation with Civil Society, date of accession: 06/12/2019. at 13.27.
[8] http://civilnodrustvo.gov.rs/ Office for Cooperation with Civil Society, Info service / Civil Society, date of accession: 06/13/2019. at 15.05.
[9] http://civilnodrustvo.gov.rs/ Office for Cooperation with Civil Society, Info Service / Civil Society, date of access: 06/13/2019. at 15.05.
[10] http://www.mc.rs/upload/documents/saopstenja_izvestaji/2015/indeks-odrzivosti-ocd-2014-izvestaj.pdf USAID, SUSTAINABILITY INDEX OF OCD 2014. SERBIA 18. EDITION - MAJ 2015. page 5, date of accession: 14.06.2019. at 16.45.
[11] Republic of Serbia, Statistical Office:
[12] http://www.stat.gov.rs/WebSite/Public/ReportResultView.aspx date of accession: 06/15/2019. year, at 5:08 pm.
[13] http://webrzs.stat.gov.rs/WebSite/Public/ReportResultView.aspx date of accession: 06/15/2019. at 17:15.
[14] http://www.stat.gov.rs/WebSite/Public/ReportResultView.aspx date of accession: 06/16/2019. at 14.56.
[15] http://webrzs.stat.gov.rs/WebSite/Public/ReportResultView.aspx date of accession: 06/17/2019. at 18.22.

LOGISTIČKI UPRAVLJAČKI POTENCIJALI DINAMIČKE USPJEŠNOSTI POSLOVANJA PODUZEĆA*

LOGISTICS MANAGEMENT POTENTIALS OF COMPANY DYNAMIC SUCCESS

Zdravko Zekić[1]
Luka Samaržija[2]

DOI: https://doi.org/10.31410/EMAN.2019.63

Sažetak: *U recentnom poslovnom okruženju stalnih promjena poduzeće može uspješno poslovati samo postizanjem dinamičkog sklada djelovanja sukladno promjenama okoline. Menadžment treba primarno sistematizirati i izučavati njihov utjecaj na uspješnost poslovanja one čimbenike koji su pod njegovom izravnom kontrolom, na koje ima utjecaja i koje može prilagođavati zahtjevima okruženja sukladno zahtjevu dinamičke optimizacije poslovnih rezultata poduzeća. U ovom radu dijagnosticirani su temeljni čimbenici, odnosno bazne logističke upravljačke varijable - logističke strategije i ciljevi, tehnologije, ljudski potencijali, informacijsko-komunikacijski sustav i organizacijska kultura, koji mrežno organizacijski povezani sukladno i karakteristikama okruženja poduzeća, omogućuju najdjelotvornije procesno kombiniranje resursa sukladno potrebama tržišta i zahtjevima kontinuirane uspješnosti poslovanja poduzeća.*

Ključne riječi: *Logistički ljudski potencijali, logističke strategije, logistička tehnologija, logističko-podzetnička organizacijska kultura, logistički informacijsko komunikacijski sustav*

Abstract: *In today's constantly changing environment, an enterprise will operate successfully only if it is in dynamic harmony with its environment. The task of management is to systematize and explore the impact of factors affecting business performance that can be influenced and adjusted in accordance with the demands of customers and in line with strategies related to dynamic optimization of business performance. The paper identifies the main factors or main logistics control variables - logistics strategies and goals, technology, human resources, information and communication technologies and organizational culture, which, in a networked organization, in accordance with the characteristics of business environment, can enable an effective resource management through processes according to the market needs and strategies related to continuous business performance management.*

Keywords: *Human Resources in Logistics, Logistics Strategies, Logistics Technologies, Logistics-Entrepreneurial Organizational Culture, Logistics ICT Systems*

1. UVOD

Dinamičan znanstveno-tehnološki razvoj naročito intenziviran na prijelazu u 21. stoljeće izaziva promjene u cjelokupnom društvenom okruženju poduzeća, što se svakako reflektira i na njegovo djelovanje, odnosno izaziva potrebu promjene modela upravljanja uspješnošću poslovanja poduzeća. Sve sofisticiranija informacijska tehnologija jača moć kupaca i omogućuje skraćivanje vremenskih ciklusa procesa stvaranja dodane vrijednosti proizvoda, te nalaže integracije i prostorno širenje područja djelovanja poduzeća kao uvjet opstanka i razvo-

* Rad je realiziran u okviru znanstvenog projekta "Razvoj upravljanje u funkciji integracije hrvatskog gospodarstva u EU" (podrška broj: 13.02.1.3.06.) uz potporu Sveučilišta u Rijeci.

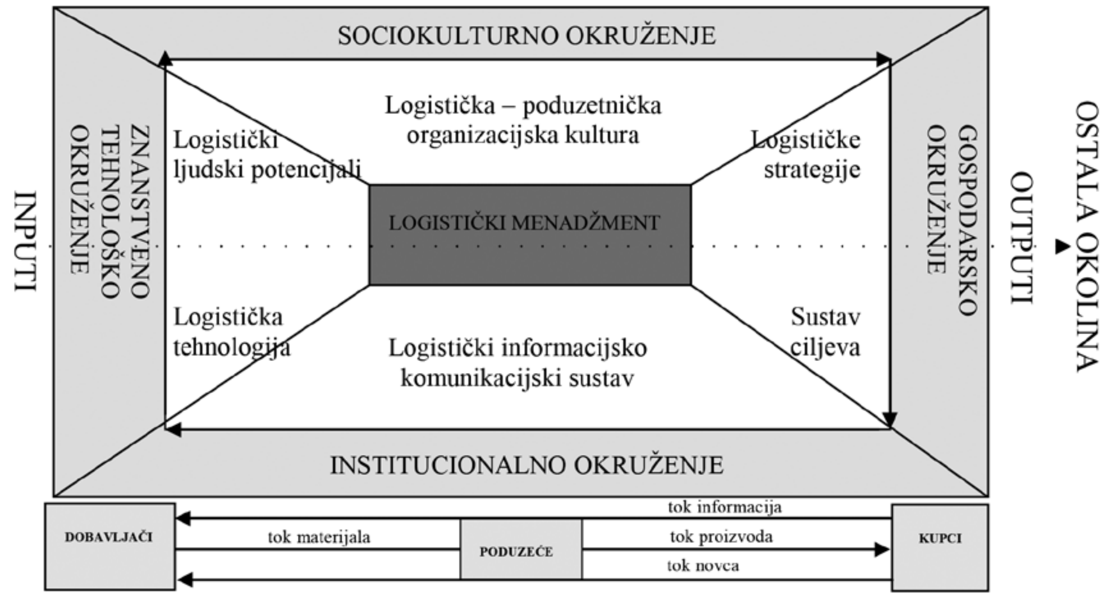
[1] Ekonomski fakultet Rijeka, Ivana Filipovića 4, Rijeka, Hrvatska

[2] Ekonomski fakultet Rijeka, Ivana Filipovića 4, Rijeka, Hrvatska

ja. Prostorno-vremenske transformacije dobara, energije, informacija i znanja sukladno procesnim potrebama sudionika stvaranja dodane vrijednosti od izvora sirovina do krajnjih korisnika proizvoda područje je potencijala uspješnosti suvremenih poduzeća. Ciljno mrežno povezivanje i dinamiziranje svih poslovnih procesa putem logističkog sustava postalo je pretpostavka uspješnosti poslovnog upravljanja. Tradicionalnu orijentaciju na proizvodne čimbenike uspjeha i optimizaciju poduzeća optimizacijom stanja njegovih podsustava zamjenjuju holistički modeli fokusirani na logističke potencijale dinamičke optimizacije poslovanja poduzeća kao sustava. Logistički koncept menadžmenta usmjerava se na "meke" logističke upravljačke varijable kako bi se postigla fleksibilnost i adaptibilnost djelovanja poduzeća sukladno zahtjevima tržišta, kao poluge dinamičke optimizacije uspješnosti njegovog poslovanja.

2. POJAM I OBILJEŽJA LOGISTIČKIH POTENCIJALA USPJEHA

Podizanje razine svijesti o utjecaju i važnosti logističkih čimbenika za uspješnost poslovanja suvremenog poduzeća nameće potrebu njihovog pobližeg determiniranja i definiranja. Logistika kao funkcija, upravljajući sustavom informacijskih, materijalnih i financijskih tokova od ulazne okoline (dobavljača), kroz kvalitativne transformacijske procese poduzeća (proizvodnju) do izlazne okoline (kupaca) pruža najpotpuniju sliku djelovanja suvremenog poduzeća. Stalnom procesnom suradnjom sa svim podsustavima stvaranja dodane vrijednosti za kupca koje rezultira uspješnim poslovanjem poduzeća, logistika nudi stohastički instrumentarij logističkih potencijala dinamičke uspješnosti poduzeća. Zahtjevi postizanja dinamičkog sklada djelovanja poduzeća sukladno promjenama okoline fokusiraju sustav logističkih potencijala kao upravljačkih varijabli suvremenog poslovanja. Praksa svakodnevno pokazuje da su "meke" logističke varijable povezane u logistički model upravljanja važnije za uspješnost poslovanja od tehnološke opremljenosti i materijalnih resursa poduzeća. Kvalitativni logistički upravljački modeli usmjereni prethodnim informacijama logističkog informacijskog sustava omogućuju kontinuirano usklađivanje ciljeva i strategija s promjenama tržišta operativnim upravljanjem ljudskim potencijalima razvijene poduzetničke organizacijske kulture i logističkim tehnologijama realizacije proizvoda kupcima, sukladno promjenjivim zahtjevima tržišta i ciljevima poduzeća (Zekić, Z., 2000.).



Shema 1: Stohastički model logističkih potencijala dinamičke uspješnosti poduzeća
Izvor: Autori

2.1. Suvremene logističke strategije i ciljevi

Suvremeno poduzeće je dinamičan, kompleksan i stohastičan ciljni sustav koji se kroz samoorganizaciju i samokontrolu prilagođava promjenama u okolini težeći kontinuiranoj optimizaciji funkcioniranja ostvarivanjem svojih ciljeva unutar dopuštenih granica odstupanja. Strategijski ciljevi koji usmjeravaju funkcioniranje poduzeća u svojoj su orjentaciji dugoročni i eksterni. Oni ukazuju na željeno stanje poduzeća u budućnosti i prestavljaju točke kojima je usmjereno planiranje, organiziranje, upravljanje ljudskim potencijalima i kontroliranje, odnosno sve funkcije menadžmenta poduzeća. Kako logistički sustav uspostavlja i održava veze poduzeća s okruženjem, usmjeravajući tokove dobara, energije, informacija i znanja između poduzeća i okruženja, on dinamizira funkcioniranje poduzeća i omogućuje njegovu fleksibilnost prilagođavanja promjenama okruženja. Stoga se temeljni cilj poslovanja poduzeća, koji je pretpostavka ostvarivanja svih deriviranih ciljeva - profitabilnost, u suvremenom dinamičnom okruženju najefikasnije postiže ostvarivanjem cilja funkcioniranja njegovog logističkog sustava.

Suštinski cilj logističkog sustava jest optimalna opskrba poduzeća materijalnim dobrima, energijom, informacijama i znanjem, te optimalna opskrba korisnika proizvodima poduzeća u traženoj količini i kvaliteti, vremenu i mjestu. Upravo zato Mentzer, Myers i Cheung (2004.) smatraju da je danas logistika najvažniji izvor konkurentske prednosti poduzeća. Stoga, poduzeća trebaju alocirati resurse i usvajati pravace akcija koji su utvrđeni odabranim stategijama i polaziti od logističke koncepcije funkcioniranja poduzeća kako bi se oblikovala adekvatna organizacija za provedbu strategija koje će omogućiti kontinuirano ostvarivanje postavljenih ciljeva.

Logistički strategijski ciljevi, kao potencijali uspjeha, odnosno šanse za ostvarivanje budućih dobiti, osnova su za poduzetničko razmišljanje i ponašanje menadžmenta, odnosno razvoj mrežne poduzetničke organizacije. Potencijali za povećanje uspjeha suvremenog poduzeća, koji su funkcija potencijala troškova i potencijala tržišta, postoje još gotovo isključivo u sferi logistike. Troškovni potencijali kroz automatizaciju, kompjutorizaciju i robotizaciju, koji su u proizvodnoj sferi iskorišteni gotovo do maksimuma, u logističkom području su vrlo veliki. Isto tako i potencijali supstitucije čimbenika proizvodnje putem logističkog sustava, koji pruža mogućnosti nadomještanja zaliha informacijama, varijabilizaciju fiksinih troškova itd., omogućuju povećanje fleksibilnosti i uspješnosti poslovanja poduzeća. Tržišni potencijali logističkog upravljanja, kojima treba usmjeriti logističke strategijske ciljeve suvremenog poduzeća, proizilaze iz činjenice da se sve više uz zamjenjiva dobra na tržištu traže informacije i usluge pravilne uporabe, montaže, servisiranja i slične usluge ispunjenja koje jačaju konkurentsku poziciju i uspješnost poslovanja.

Pravilno postavljeni i ostvarivani logistički strategijski ciljevi su conditio sine qua non postizanja dinamičke optimizacije suvremenog poduzeća, kojima moraju biti prilagođeni svi ostali organizacijski čimbenici da bi se kontinuirano postizala uspješnost poslovanja poduzeća u suvremenom turbulentnom okruženju. Kombinacija logistićkih strategija upravljanja opskrbnim lancem i kompresije vremenskih ciklusa omogućuje povećanje razine usluge kupcima i posljedično prihoda uz paralelno snižavanje rashoda poslovanja, čime se povećava profitabilnost poduzeća.

2.2. Logistička tehnologija

Osnovna strategija razvoja proizvodnih sustava u suvremenim poduzećima je postizanje fleksibilnosti, odnosno sposobnosti sustava da svoju strukturu, funkcije i ponašanje mijenja u skladu s promjenama ciljeva, koji se mijenjaju sukladno promjenama u okruženju. Danas je fleksibilnost poduzeća ključni čimbenik njegovog opstanka (Graves & Willems, 2005.). Razvoj

fleksibilnosti je omogućen, prije svega, tehnološkim razvojem, a onda i posljedično razvojem odgovarajućih upravljačkih pristupa i metoda. Sustavi za postizanje fleksibilnosti proizvodnje su sustavi fleksibilnog transporta, skladištenja, izrade i manipulacije, tj. logistički sustavi. Oni omogućuju ubrzanje uvođenja novih proizvoda i rekonfiguriranje proizvodnih linija, mješovitost tipova i varijanti proizvoda na proizvodnoj liniji, te zamjenu ljudskog rada na pojedinim radnim mjestima robotima, manipulatorima i automatiziranim transportom.

Razvoj logističkih informacijskih tehnologija omogućuje mijenjanje načina poslovanja poduzeća što dovodi do razvoja logističkog upravljanja, koji rezultira mogućnostima povećanja proizvodnosti resursa (efikasnosti) i povećanja dostupnosti proizvoda na različitim mjestima u različitim vremenima (efektivnosti). Funkciju logističkog upravljanja informacijskim tehnologijama vrlo je teško izdvojiti u posebnu organizacijsku jedinicu. Ona je zapravo potporna funkcija svim poslovnim funkcijama i poslovnim procesima te predstavlja mogućnost unapređenja njihova funkcioniranja (Müller, 2001).

Logistička (informacijsko-komunikacijska) tehnologija potiče razvoj novih tehnika istraživanja tržišta, menadžmenta nabave, upravljanja zalihama, fleksibilizacije proizvodnje, distribucije itd., koje dovode do komprimiranja prostora i vremena te posljedično snižavanja troškova poslovanja i potrebnog kapitala te povećanja zadovoljstva kupaca i poslovnih prihoda. Nadalje, prema Davenportu (1993) informacijska tehnologija omogućuje: automatizaciju poslovnih procesa, skraćivanje trajanja vremena poslovnih procesa, lakše prikupljanje, pohranjivanje i dostavljanje informacija kroz formiranje repozitorija poslovnih procesa, nadzor i praćenje poslovnih procesa u realnom vremenu, pravovremene intervencije, analize velikih količina podataka, povezivanje aktivnosti u poslovni proces te brži prijenos informacija između geografski udaljenih područja.

Logistička tehnologija, kao skup znanja, vještina i stručnosti sjedinjavanja ljudskih potencijala i tehničkih sredstava u procesima prostorno-vremenske transformacije dobara, energije, informacija i znanja determinira ljudske potencijale, materijalne i informacijske resurse, kao i organizacijsku strukturu koja u suvremenim uvjetima dinamičnog okruženja treba biti fleksibilna i adaptabilna da bi omogućavala kontinuirano uspješno ostvarivanje ciljeva poduzeća. Snažne impulse razvoju logističke tehnologije daju informatička i komunikacijska tehnologija, koje kroz strojnu i programsku podršku doprinose jednostavnijem, bržem i efikasnijem odvijanju logističkih procesa, čineći transparentnim cjelokupni opskrbni lanac poduzeća.

Poduzetnički menadžment suvremenog poduzeća treba razvijati tehnologije opskrbe proizvodnih linija ovisno o potražnji proizvoda na osnovi logističke informacijsko-komunikacijske tehnologije koja omogućuje upravljanje zalihama na bazi preciznih i pravodobnih informacija o cjelokupnom opskrbnom lancu. Integracija opskrbnog lanca poduzeća u logistički sustav čije je funkcioniranje organizacijski uklopljeno u sustav ostvarivanja strateških ciljeva poduzeća omogućuje tek efikasnu primjenu logističkih tehnologija koje doprinose skraćivanju vremena odvijanja transformacijskih procesa u poduzeću. To direktno dovodi do smanjenja potrebnog kapitala vezanog kako u tekućim tako i stalnim sredstvima, poboljšanja likvidnosti i solventnosti poduzeća i uspješnijeg zadovoljavanja korisnikovih potreba, što se odražava u većoj profitnoj marži i profitabilnost poslovanja.

Tehnološki razvoj za kojeg postoje vidljivi potencijali, kako u području logističke opreme, tako i u području logističkih metoda i postupaka, ujecat će na sve veće značenje logističke tehnologije za uspješnost poslovanja poduzeća.

2.3. Logistički ljudski potencijali

Fleksibilnost, kao temeljna odrednica suvremenog poslovanja ima svoje uporište u ljudskom čimbeniku, jedinom dinamičnom elementu organizacije. Ona se ostvaruje logističkim procesima, pa logistički ljudski potencijali postaju osnovni kapital, izvor snage i uspješnosti suvremenog poduzeća. Potencijalna i stvarna proizvodna i poslovna moć prirodnih, tehničkih i informacijskih resursa kao čimbenika uspješnosti poduzeća presudno je ovisna o ljudskim potencijalima, odnosno o znanju i sposobnosti ljudi da te resurse racionalno uporabe u procesu ostvarivanja ciljeva poduzeća. Sustavnim usklađivanjem njihovih individualnih ciljeva i interesa sa strategijom i ciljevima poduzeća, komuniciranjem i motiviranjem, postižu se značajni uspjesi, pogotovo u sferi logistike, kao radno, tj znanjem intenzivne funkcije.

Važnost socijalnih odnosa u teoriji sustava, kao podloge logističkog koncepta upravljanja poslovanjem poduzeća, kontinuirano se naglašava (Wallis, 2009.). Jake socijalne veze u logističkom - znanjem intenzivnom području relativno češće dovode do nesklada, kako između pojedinaca, tako i između grupa. Nastale konflikte, menadžment treba rješavati komuniciranjem, tako da se dovedu u vezu s ciljevima poduzeća. Konstruktivni problemski konflikti izvor su kreativnosti i inovativnosti logističkih ljudskih potencijala, a vođenje temeljna funkcija suvremenog poduzetničkog – logističkog menadžmenta. Logistički menadžment, kao i logistički stručnjaci moraju, pored specijalističkih logističkih znanja, posjedovati i odgovarajuća interdisciplinarna i multidisciplinarna ekonomska, organizacijska, tehnička, informatička i druga znanja da bi mogli uspješno obavljati logističke upravljačke aktivnosti u suvremenom poduzeću. Djelotvorno usmjeravanje logističkih ljudskih potencijala stoga i jest čimbenik o kojem presudno ovisi uspješnost poslovanja poduzeća u recentnom turbulentnom okruženju. Tehnološki razvoj u području logistike to značenje neće umanjiti, već će naprotiv zahtijevati razvijenije ljudske potencijale, kao osnovni (intelektualni) kapital, izvor konkurentske sposobnosti poduzeća.

2.4. Logistički informacijsko-komunikacijski sustav

Suvremeno poslovanje zahtijeva da se se kupac tretira prije svega kao izvor informacija, a tek potom kao potrošač. Informacije o potrebama, zahtjevima i željama korisnika proizvoda i usluga polazna su osnova za upravljanje logističkim sustavom u pravcu stvaranja dodatne vrijednosti proizvoda i usluge za korisnika. Tako Davenport (1993.) i Harrington (1996.) ističu da poduzeće treba oblikovati svoje procese kako bi se zadovoljile potrebe kupaca za proizvodima ili uslugama odgovarajuće kvalitete i cijene, u adekvatnom vremenskom roku, uz istovremeno ostvarivanje dodatne vrijednosti. U procesu poslovnog upravljanja logistički sustav ima ulogu skupljača i distributera podataka i informacija neophodnih za efektivno i efikasno odvijanje same logistike, ali i ostalih funkcija suvremenog poduzeća. Procesi prikupljanja informacija, njihova obrada i prijenos u logističkom sustavu odvijaju se paralelno s odvijanjem poslovnih procesa. Stoga informacija zauzima središnje mjesto u razvoju logističke koncepcije upravljanja suvremenim poduzećem.

Za učinkovito upravljanje u pravcu postizanja ciljeva poduzeća neophodne su prethodne, odnosno prijevremene informacije. Na osnovi informacijskih logističkih procesa oblikuju se logistički upravljački sustavi koji usmjeravaju cjelokupno poslovanje poduzeća u pravcu ostvarivanja ciljeva. Odgovarajuće upravljanje informacijama osigurava menadžmentu podlogu za donošenje pravodobnih i kvalitetnih odluka. Tržišne operacije generiraju velike količine informacija, od kojih su mnoge i korisne, ali ipak njemu nepotrebne za upravljanje logističkim procesima. Menadžment može izbjeći potencijalnu zatrpanost informacijama samo izgradnjom učinkovi-

tog informacijsko-komunikacijskog sustava za brzo i točno prenošenje potrebitih informacija određenim razinama upravljanja, odnosno određenim korisnicima. Integracija logističkog informacijsko-komunikacijskog sustava s informacijsko-komunikacijskim sustavima proizvodnje, marketinga, financija i ostalih funkcionalnih područja u upravljački informacijsko-komunikacijski sustav poduzeća, pomaže logističkom menadžmentu postizanje dinamičke optimizacije poslovanja na osnovu kvalitetnih i pravodobnih informacija o dinamici djelovanja poduzeća sukladno promjenama njegovog okruženja.

Kvaliteta i brzina toka informacija, koji prethodi, prati i slijedi tok dobara, energije i znanja u logističkom sustavu presudno utječe na brzinu usklađivanja ponašanja poduzeća sa zahtjevima okruženja. Komunikacijsko povezivanje u logističke mreže osnova je kvalitetne i brze razmjene informacija kako unutar poduzeća tako i s njegovim okruženjem, čime se stvaraju uvjeti za kvalitetno odlučivanje i stvaranje znanja koje stoji u temeljima svakog proizvoda/usluge i uspješnosti poslovanja svakog poduzeća. Da bi preživjele i napredovale, posebice promatrano dugoročno, organizacije se moraju mijenjati i prilagoditi vlastitoj okolini (Westover, 2010.) Stoga, efikasno upravljanje poduzećem u suvremenim uvjetima brzih promjena okruženja jednostavno nije moguće bez jake informacijske podrške koju pruža logistički informacijsko-komunikacijski sustav za podršku odlučivanju menadžmenta. On postaje infrastruktura modeliranja dinamičke optimizacije poslovanja, koju menadžment nastoji postići simulirajući poslovne događaje korištenjem velikog broja čimbenika i njihovih promjena, odnosno njihova utjecaja na poslovne rezultate poduzeća u različitim situacijama.

2.5. Logistička organizacijska kultura

Hofstede (2010) definira organizacijsku kulturu kao kolektivno programiranje uma, koje čine pripadnike jedne grupe drugačijom od druge. Organizacijska kultura postaje nezaobilazan čimbenik upravljanja uspješnošću poslovanja poduzeća u uvjetima kada ljudski potencijali predstavljaju njegov osnovni kapital. Ona je utkana u sve aktivnosti poduzeća. Kao općeprihvaćeno organizacijsko ponašanje, utemeljeno na zajedničkim vrijednostima zaposlenika poduzeću, organizacijska kultura utječe na formuliranje ciljeva poduzeća, a i podloga je za njihovo ostvarivanje.

Organizacijska kultura je posebno značajna za efikasno odvijanje logističkih procesa, koji prožimaju sve aktivnosti poduzeća i koji razvijaju pretežite socijalne veze u poduzeću i odnosima s okolinom. Sposobnost menadžmenta da kroz logistički sustav inkorporira organizacijsku kulturu utemeljenu na vodstvu i inicijativnosti pojedinaca rezultirat će u pravilu efikasnijim poslovanjem poduzeća. Razvijanje pak organizacijske kulture zasnovane na poslušnosti i hijarhijskoj odgovornosti u suvremenim uvjetima brzih i nepredvidivih promjena rezultira u pravilu destruktivnim konfliktnim situacijama koje otežavaju funkcioniranje logističkih procesa i umanjuju uspješnost poslovanja poduzeća.

Logistička organizacijska kultura, izražena kroz odnos prema korisničkim stavovima i željama, odnos prema inovacijama i tehnološkom progresu, odnos prema očuvanju okoliša, odnos prema radnicima i poslu i sl., definira većinu onoga što se i kako radi u određenom poduzeću. Obzirom da organizacijska kultura treba doprinositi ostvarivanju ciljeva na čiji odabir i sama utječe, njeno razvijanje, odnosno inkorporiranje u kontinuirani proces povećanja uspješnosti poslovanja predstavljat će uvijek izazov za poduzetnički menadžment suvremenog poduzeća. Menadžerski stil koji vodi ukazujući na organizacijske vrijednosti izražene kroz strategijske ciljeve i stvarajući organizacijsku klimu zadovoljstva, usklađivanjem pojedinačnih interesa i vrijednosti s interesima i vrijednostima sustava razvija organizacijsku kulturu pogodnu za dinamičku op-

timizaciju poslovanja poduzeća. Pri tome, promjene organizacijske kulture kao planski proces oblikovanja nove poslovne strategije kojom se anticipiraju promjene u društvu ili na tržištu zahtijevaju analizu temeljnih pretpostavki na kojima počiva organizacija, analizu vrijednosti, klime i načina upravljanja. Prilagođavanje organizacijske kulture novim okolnostima je uvjet dinamičke optimizacije poslovanja poduzeća, koji je, međutim, opet direktno zavisan o stanju postojeće organizacijske kulture. Poticaji za promjenu organizacijske kulture u suvremenom poduzeću najčešće dolaze putem logističkog sustava. Potencijali i poticaji za povećanje uspješnosti funkcioniranja logističkih procesa koji dolaze kako iz samog poduzeća, tako i iz njegovog okruženja, obzirom na karakter logističkih aktivnosti, rezultiraju promjenama ciljeva, organizacijske strukture, tehnologije i zaposlenih. Promjene organizacijske kulture trebaju olakšavati sve druge vrste promjena, premda se i same odvijaju pod njihovim utjecajem.

Transformacija organizacije upravljanja poslovanjem poduzeća, sukladno potrebama kontinuiranog postizanja dinamičkog sklada njegovog djelovanja s promjenama trendova okoline i karakteristikama temeljnih potencijala uspješnosti, zahtijeva zamjenu čvrstih hijerarhijskih struktura i optimizacije stanja fleksibilnim mrežnim logističkim organizacijama i optimizacijom tokova – dinamike poslovnih rezultata, odnosno preusmjeravanje fokusa s aktivnosti na rezultate, od analiza prošlosti prema simuliranju budućnosti.

3. ZAKLJUČAK

Logistički sustav pruža adekvatne upravljačke varijable za kontinuirano uspješno prilagođavanje poduzeća promjenama okoline te predstavlja najpogodniju podlogu upravljačkog sustava suvremenog poduzeća. Postizanje dinamičkog sklada djelovanja poduzeća s promjenama potreba, zahtjeva i očekivanja okoline jedini je put postizanja kontinuirane uspješnosti poslovanja suvremenog poduzeća. Kao integrativni sustav koji povezuje sve druge funkcije poduzeća, logistički upravljački sustav treba biti ciljno zasnovan te podupirati ciljno djelovanje svih podsustava poduzeća, težeći sinergizmu njihova djelovanja i fleksibilnosti poslovanja cjelokupnog poduzeća. Logistički procesi se odvijaju, naime, tako da objekt mijenja svoje mjesto u prostoru i vremenu, pa su logistički sustavi u svojoj osnovi dinamički, fleksibilni organizacijski sustavi koji teže dosezanju cilja poduzeća kao sustava. Logistički sustav nema svoje specifične ciljeve, već su njegovi ciljevi derivirani ciljevi poduzeća, pa je optimizacijom logističkih potencijala uspjeha kao sustava moguće dinamički optimizirati poslovanje poduzeća i u suvremenim uvjetima stalnih promjena svih segmenata njegove okoline.

LITERATURA

[1] Hunger, J. D., Wheelen, T. L. (2007) *Essential of Strategic Management*, Prentice Hall, Upper Saddle River, New Jersey, pp. 20-21.

[2] Mentzer, J.T., Myers, M.B., and Cheung, M. (2004.), Global market segmentation for logistics services, Industrial Marketing Management 33, pp. 15-20.

[3] Hofstede, G., Hofstede, G. J. & Minkov, M. (2010.), Cultures and Organizations. New York: Mc-Graw Hill

[4] Westover, J. H., (2010.), Managing Organizational Change: Change Agent Strategies and Techniques to Successfully Managing the Dynamics of Stability and Change in Organizations. International Journal of Management and Innovation, 2(1), pp. 45-50.

[5] Müller, J. (2001.), Upravljanje informacijskom tehnologijom u suvremenim tvrtkama te hrvatska poslovna praksa korištenja informacijskih tehnologija. Ekonomski pregled, 52 (5-6), str. 587-612.
[6] Davenport, T. H. (1993.), Process Innovation: Reengineering Work through Information Technology, Boston: Harvard Business School Press.
[7] Harrington, Lisa H. (1996.), Logistics assets: Should you own or manage? Transportation and Distribution, 37(3), 51-54.
[8] Zekić, Z.(2000.), Logistički menadžment, Glosa, Rijeka
[9] Wallis, S.E. (2009), The Complexity of Complexity Theory: An Innovative Analysis. Emergence: Complexity and Organisation, 11(4): 26–38.
[10] Graves, S.C. and Willems, S.P. (2005), "Optimising the supply chain configuration for new products" Management Science, Vol.51, No.8, pp.1165-1180.

EVALUATION OF PUBLIC SUPPORT PROGRAMMES IN FINANCING OF SMALL AND MEDIUM – SIZED ENTERPRISES

Katarína Belanová[1]

DOI: https://doi.org/10.31410/EMAN.2019.71

Abstract: *Small and medium-sized enterprises are a key segment of the business sector in Slovakia, as well as the backbone of the economy and the basis for the country's competitiveness. A favorable business environment and the provision of appropriate forms of support is an important prerequisite for the successful development of small and medium-sized enterprises because they usually have limited financial sources and significantly higher sensitivity to the existence of different barriers in business compared to large enterprises. Under the conditions of Slovakia, a number of support measures have been implemented, which direct or indirect aim is to support small and medium-sized enterprises. The aim of the article is to evaluate support programmes for SMEs in the SR and to propose measures to improve the support system.*

Keywords: *Small and medium – sized enterprises, public support programmes, bank loans*

1. INTRODUCTION

The small and medium-sized business sector is an integral part of any advanced market economy. The importance of small and medium - sized enterprises (SMEs) in the Slovak economy is characterized by several indicators. Even in 2017, they represented 99.9% of the total number of business entities in the Slovak economy, employed circa three quarters (73.8%) of the active labor force in the corporate economy, and contributed to the added value generation. The positive development of the national economy has also been reflected in positive impacts on the development of the said indicators, when, as compared to 2016, the number of employees in SMEs increase of 1.4%, the added value of 8.9% and the generated profit of 7.5%. The growth in value added in the SME sector has been most significant over the past seven years [1].

The significance of small and medium-sized enterprises is also recognized by individual EU countries that use a wide range of support measures to help them.

There have been many support measures implemented in the Slovak Republic in order to improve the conditions for doing business of SMEs. Creating new as well as further developing of support tools for entrepreneurs can help to sustain the growth of the economy and promote employment in the long term. However, without evaluating the impact of support measures, it is not possible to assess the degree of fulfillment of the individual priorities and objectives of these instruments.

This was the reason why we decided to focus on evaluation of effectiveness of public funding for SMEs. The aim of the article is to evaluate support programmes for SMEs in the SR and to propose measures to improve the support system.

1 University of Economics in Bratislava, 1 Dolnozemská Street, 852 35 Bratislava, Slovakia

2. LITERATURE REVIEW

One of the basic prerequisites for the development of the SME sector is access to finance. Small and medium-sized enterprises, given their distinctive features, have different financial needs compared to large enterprises. Because SMEs are often perceived as relatively risky subjects by the banking sector, they try to obtain resources for the development of their business even from the public sector.

[2] dealt with issues of obtaining funds and attitudes of banks to small and medium-sized enterprises. They have shown that banks play a crucial role in financing SMEs because they have a difficult access to the capital market.

However, small and medium-sized enterprises are usually at a disadvantage compared to large firms in accessing debt financing.

It is due to the fact that SMEs have different structure of assets compared to large companies – share of their fixed assets to total assets is significantly lower. On the other hand, the share of current liabilities to assets is higher, which indicates their higher financial vulnerabilityMSP majú opM [3].

They tend to have less financial strength, do not have sufficient collateral, which is usually the main reason why banks refuse to provide credit to them and why such businesses obtain it so hard. Smaller businesses and enterprises with a shorter history have only short-term contacts with the banks and therefore pay higher interest rates and the banks require higher guarantees from them [4]. Later, [5] continued in studies of relations between SMEs credit availability and banks' organizational structure. They stated that companies' size and age play an important role in obtaining external finance.

[6] - [9] also reached similar conclusions in their studies.

It is obvious that support for small and medium-sized enterprises (SMEs) is very important. Their functioning and growth help further with the multiplier effect to support the national economy, which can be tracked through indicators such as Gross Domestic Product (GDP), Gross National Product (GNP) or Unemployment Rate.

The survey, evaluating the impacts and effects of selected support measures on the SMEs themselves is also available. SBA, in [10], confirmed the positive economic impacts on supported SMEs within the framework of the measure 1.1. Innovation and technological transfers of the Operational Programme Competitiveness and Economic Growth. It confirms the importance of the structural funds of the EU for the financing of SMEs. Similarly, positive results have also been shown by the recipients of its Micro-loan Programme.

3. PUBLIC SUPPORT FOR SMES

Statistical data show, that from 2015 to 2016, SMEs were mainly supported by EU grants, accounting for more than 25% of the total amount of financial support for SMEs for those years. In 2017, support for SMEs through EU grants fell significantly and accounted for 1.6% of the total financial support for SMEs. The reason for such a decline is a slow start in the use of support programmes under the new 2014-2020 programming period. In 2017, financial support under loans from the budget resources represented 30% of the total amount of support for SMEs.

According to the results of the European Commission (EC) survey on SME access to finance [11], small and medium-sized enterprises in the Slovak Republic are characterized by a low rate of utilization of public grants and subsidized loans. In 2017, only 2.3% of small and medium-sized enterprises were using public grants and subsidized loans in Slovakia. Compared to 2016, the rate of use of public grants or subsidized loans to small and medium-sized enterprises in Slovakia increased year-on-year (from 1.3% in 2016 to 2.3% in 2017), but is still lower than in 2014 and 2015. A substantially higher rate of use of public grants and subsidized loans is achieved in the EU-28 (7.3%) and in the V4 countries (6.7%).

Table 1: Financial statement of support drawn by SMEs for the years 2015-2017.

Form of financing	**Relatively (%)**		
	2015	**2016**	**2017**
EU grants	28,0	25,3	1,6
Support in the frame of SPP	8,0	1,4	4,9
Subsidies from the state budget	5,8	10,0	19,4
Measures of active labor policy	12,1	19,4	19,3
Loans with the support of EU	18,7	16,1	15,4
Loans from the state budget	21,1	19,8	30,0
Innovation fund	0,1	0,1	0,1
guarantees	4,9	4,8	7,9
Venture capital	1,3	2,4	0,7
incentives	0,0	0,7	0,7
Total	100,0	100,0	100,0

Source: Own elaboration

Small and medium-sized enterprises use public grants and subsidized loans mostly in Italy (14.1%), Hungary (12.0%) and Slovenia (11.7%). Slovakia ranks among the countries with the lowest use of public funding sources (2.3%). Only three countries, namely Estonia (1.8%), the Netherlands (1.5%) and Latvia (1.2%) were placed after Slovakia in the comparison.

Only 15.4% of small and medium-sized businesses in Slovakia considered grants and subsidized loans as the relevant source of their funding.

This is confirmed by the results of a further EC survey [12], which evaluated entrepreneurs' attitudes towards corruption. It also states that Slovak business entities are characterized by a low level of use of public support programmes designed to support entrepreneurship.

The results of the survey show that in 2017, some 6.3% of business entities in Slovakia have used some type of public support to promote business in the previous 12 months. A higher rate is achieved in the EU – 28 (8,5%) and in the V4 countries (13,3%).

In order to map the attitudes of small and medium-sized enterprises to the use of support programmes, the Slovak Business Agency conducted a representative quantitative survey of 1,000 SMEs [13].

We value positively the fact that in the period 2015-2018 the number of entrepreneurs who have enough information on the possibilities of using support programmes increased (from 39% in 2015 to 43% in 2018).

Entrepreneurs who acquired or attempted to obtain public support for their business identified the Internet (40%) as the most commonly used source of public support information. Nearly one third of entrepreneurs received information on public support from their friends, acquaintances and business partners (32%) and through a call for proposals (29%). Nearly one quarter (24%) of small and medium-sized enterprises have used the official sites of support institutions. 15% of small and medium-sized entrepreneurs used television and print media. To a lesser extent, entrepreneurs reported social media (8%) and advertising (6%).

The most significant obstacle to the availability of public support for entrepreneurs was the high administrative burden, the demanding fulfillment of the support conditions or the long evaluation procedures of the applicants.

According to approximately half of the respondents, public sector support should be more strongly geared towards promoting entrepreneurship for start-ups (53%) and micro-enterprises (51%).

Public support was used for employment and retention of workers (35% of SMEs that received public support). In order to support the implementation of innovation activities, support was provided for 29% of small and medium-sized enterprises. For the introduction of organic products and services, support was primarily used for 13% of respondents. Almost every tenth entrepreneur (9%) took advantage of the support received in the start-up business.

There were positive impacts prevailing at entrepreneurs who received public support for the development of their business. According to more than one third of respondents (35%), the support received helped to overcome short-term business problems. A quarter of small and medium-sized enterprises were helped by the support received to strengthen the company's market position (25%) and stimulated further expansion (24%). 16% of supported firms received the necessary information through the support provided.

Nearly two thirds (61%) of small and medium-sized enterprises in Slovakia plan to use public support for their business in the future. On the contrary, more than one third (39%) of entrepreneurs expressed no interest in future public support for entrepreneurship. More than one fifth (21%) of respondents plan to use the EU contribution/grant in the future. In the future, 18% of SME representatives plan to use the state budget contribution/subsidy. 12% of small and medium-sized enterprises plan to use a tax advantage in the future, a 10% discounted loan or loan, 9% advice and information services, and a 4% guarantee. 6% of small and medium-sized enterprises plan to use other forms of public support in the future.

4. EVALUATION OF PUBLIC SUPPORT FOR SMES

The development described in the previous part is also in line with the assessment of government support programmes for small and medium-sized enterprises, which we elaborated according to Global Entrepreneurship Monitor data, component National Expert Survey (GEM NES). On a year-on-year basis, the evaluation of support programmes in Slovakia after previous improvement decreased by 0.6 points. The level of evaluation of support programmes in 2017 was the lowest within the monitored period.

Evaluation of support programmes for SMEs in V4 countries shows a relatively stable development (around 2.5 points), with a slight decrease in 2017 to 2.3 points. There is also a relatively constant assessment in the EU countries, which oscillates 2.8 points in the period under review.

Table 2: Evaluation of public support programmes for SMEs

Country	2013	2014	2015	2016	2017	2017/2016 (p.p.)
SR	2.2	2.3	2.3	2.6	2.0	-0.6
EU	2.8	2.8	2.7	2.8	2.8	0.0
V4	2.5	2.5	2.5	2.5	2.3	-0.2

Note: Assessment of government programmes for SMEs is classified on a scale from 1 (worst) to 5 (best).

Source: Own elaboration according to GEM NES data

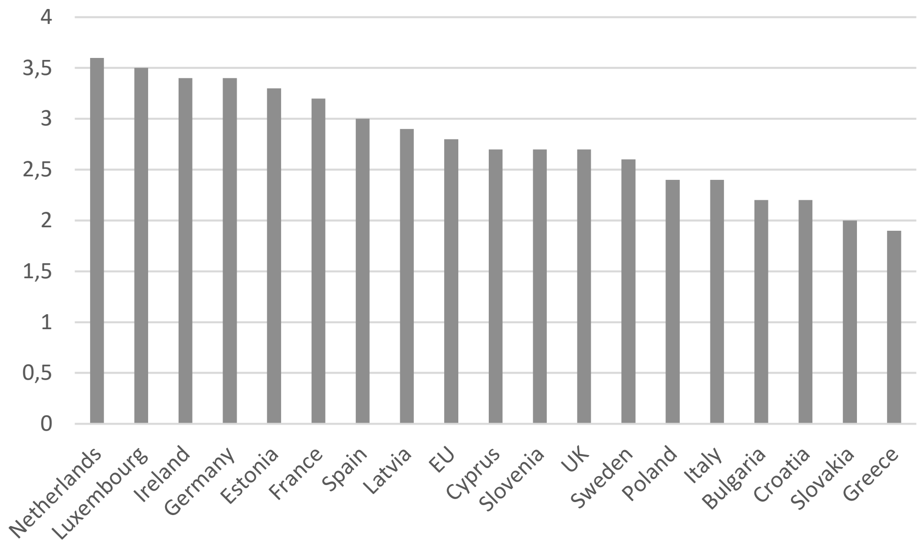


Figure 1: Evaluation of government support programmes for SMEs

The significant lag of Slovakia in the status and quality of support programmes for small and medium-sized enterprises is also highlighted by the ranking of individual EU countries in the given area. In this comparison, Slovakia is ranked at the penultimate place ahead of Greece, which achieved a score of 1.9 points in 2017. Other V4 countries are also characterized by below-average levels of government support programmes. Countries such as the Netherlands (3.6 points), Luxembourg (3.5 points), Ireland and Germany (3.4 points each) rank best in government support programmes for entrepreneurs.

5. CONCLUSIONS

The position of small and medium-sized enterprises in the national economy in terms of job creation, local economy supports or balancing of regional development disparities is significant in Slovakia in the long run. Not only macroeconomic development, a stable rate of economic growth, but also a range of support measures implemented within Slovakia's economic policy have had a positive influence on the business conditions of SMEs in recent years.

In order to improve the conditions for the use of support programmes, it is a prerequisite not only to increase the quantity and budget capacity of the support programmes, but also to increase their efficiency and availability for individual target groups. As the SME business support system in Slovakia is rather complex and not very transparent to business people, it is important to strengthen SME awareness at regional and local level. 97% of business entities in Slovakia are micro-enterprises, but up to two-thirds of these entrepreneurs feel a lack of infor-

mation about the possibilities of using support programmes. Examples of suitable measures in this area include national projects of the National Business Centers of the SBA, which aim to provide entrepreneurs with a comprehensive range of services, including information support on support measures in the Slovak Republic.

As additional measures to improve the use of support programmes and to streamline support delivery, we propose to: reduce time and simplify administrative processes between submitting a grant application until it is approved, simplify and streamline the procurement process, reduce the difficulty of defined measurable indicators, or introduce a „pre-class" evaluation of project objectives. Furthermore, it would be appropriate to simplify the EU grant scheme so that the applicant is able to develop the project self-help, without the need for external consultancy agencies. These measures would increase the attractiveness of support programmes for entrepreneurs and the conditions for the use of support measures.

REFERENCES

[1] SBA. (2018). State of Small and Medium Enterprises 2017. http://www.sbagency.sk/en/slovak-business-agency
[2] Berry, A., Grant, P., Jarvis, R. (2004). *European Bank Lending to the UK SME Sector, An Investigation of Approaches Adopted*. In International Small Business Journal, Vol. 22, No. 2, pp.115 - 130.
[3] Cressy, R., Olofsson, Ch. (1997). *European SME Financing*. In Small Business Economics, 2, pp. 87 – 96.
[4] Berger, A., Udell, G. (1995). *Relationship Lending and Lines of Credit in Small Firm Finance*. In Journal of Business, 3, pp. 351 – 382.
[5] Berger, N. A., Udell, F. G. (2002). *Small Business credit Availability and Relationship lending. The importance of Bank organisational Structure.* In The Economic Journal, Vol. 112, Issue 477, pp. F32-F53.
[6] Dierkes, M. et al. (2013). *Business credit information sparing and default risk of private firms.* In Journal of Banking & Finance, Vo. 37, pp. 2867-2878.
[7] Machauer, A., Weber, M. (2000). *Number of bank relationships: An indicator of competition, borrower quality, or just size?* CFS Working Paper, No. 2000/06.
[8] Degryse, H., Van Cayseele, P. (2000). *Relationship lending within a Bank-based system: Evidence from European small business data.* Center of Economic Studies, Discussion Paper Series DPS 98.16.
[9] Pervan, I., Kuvek, T. (2013). *The relevant Importance of Financial Ratios and Nonfinancial variables in Predicting of Insolvency.* In Croatian Operational research review, No. 4, pp. 187-197.
[10] SBA (2018). Analýza efektívnosti podpory podnikania. www.sbagency.sk
[11] EK (2017a). Survey on the access to finance of enterprise. www.ec.europa.eu
[12] EK (2017b). Businesses' attitudes towards corruption in the EU. www.ec.europa.eu
[13] SBA and Crystal Ball (2018). Postoje MSP k využívaniu podporných nástrojov.
[14] www.sbagency.sk

MENADŽERSKA MREŽA I STILOVI LIDERSTVA NA PRIMJERU BANKARSKOG SEKTORA CRNE GORE

MANAGEMENT NETWORK AND STYLES OF LEADERSHIP ON THE EXAMPLE OF THE BANKING SECTOR OF MONTENEGRO

Milica Raičević[1]
Dijana Medenica Mitrović[2]

DOI: https://doi.org/10.31410/EMAN.2019.77

Sadržaj: *Uspješan menadžer treba da procijeni koji pristup prema zaposlenima poboljšava kako kvalitet međusobnih odnosa, tako i odnos zaposlenih prema postavljenim zadacima, što utiče na poslovni ambijent, kao jedan od faktora konkurentnosti. Predmet istraživanja je da se utvrdi da li su i u kojoj mjeri menadžeri usmjereni na zadatke, odnosno na međuljudske odnose, kao i da li se promjenio stil liderstva menadžera bankarskog sektora u dva posmatrana vremenska perioda. Cilj rada je da se kreira adekvatan pristup za unapređenje odnosa lider-sljedbenik, čime se utiče na poboljšanje poslovnog ambijenta, kao jednog od faktora za uspješno poslovanje. Za potrebe istraživanja podaci su prikupljeni anketnom metodom, putem posebno dizajniranog upitnika prilagođenog Menadžerskoj mreži i ocjeni stilova liderstva. Doprinos rada se ogleda u tome što se stiče uvid u dominantni tip stila liderstva menadžera u bankarskom sektoru, a dobijeni rezultati daju dobru osnovu za dalje praćenje i upoređivanje kako promjene stila liderstva, tako i njihovog uticaja na ukupni poslovni ambijent i ostvarivanje poslovnih rezultata.*

Ključne riječi: *menadžerska mreža, stilovi liderstva, bankarski sektor*

Abstract: *A successful manager should evaluate which approach to employees improves both the quality of relationships and the attitude of employees to the tasks set, which affects the business environment as one of the factors of competitiveness. The subject of the research is to determine whether and to what extent managers are focused on tasks, or on interpersonal relationships, and whether the leadership style of the managers of the banking sector has changed in the two observed periods. The aim of the paper is to create an adequate approach for improving the relationship of the leader-follower, which influences the improvement of the business environment as one of the factors for successful business. For the purpose of the research, the data were collected by the survey method, through a specially designed questionnaire adapted to the Management Network and a rating of leadership styles. The contribution of the paper is reflected in gaining an insight into the dominant type of leadership of managers in the banking sector, and the obtained results provide a good basis for further monitoring and comparison of changes in leadership styles and their impact on the overall business environment and the achievement of business results.*

Keywords: *management network, leadership styles, banking sector*

---

[1] Faculty of Economics and Business, Mediterranean University Podgorica, Montenegro
[2] Faculty for Business Management Bar, Montenegro

1. UVOD

Usmjeravanje zaposlenih ka postavljenim zadacima, njihovo motivisanje da daju maksimum, kako pri obavljanu dodijeljenih zadataka, tako i pri kreiranju dobrih međusobnih odnosa i poslovnog ambijenta je vrlo složeni i višedimenzionalan proces. Menadžeri moraju da nadju mjeru i dobar odnos između usmjerenosti na zadatke kao i na međuljudske odnose u kolektivu. Posebno je bitno naći tu mjeru u uslužnim djelatnostima, kao što je bankarski sektor, jer dobra usluga i cjelokupna ponuda, a samim tim i profit zavise od zadovoljstva, lojalnosti i kompetentnosti zaposlenih, a posebno onih koji se nalaze na prvoj liniji usluživanja. Menadžeri svojim stilom liderstva utiču na cjelokupnu poslovnu atmosferu, kao i na usmjeravanje zaposlenih i njihovo zalaganje za ostvarenje postavljenih ciljeva. U procesu ostvarivanja strateških i operativnih ciljeva, menadžment je često prinuđen da mijenja svoj odnos prema zaposlenima i radnim zadacima, u cilju efikasnijeg i efektivnijeg poslovanja.

2. STIL LIDERSTVA I KARAKTERISTIKE MENADŽERA

U literaturi srećemo brojne pristupe liderstvu iz kojih proizilaze različite klasifikacije stilova liderstva. *Pristup stilu liderstva (style approach)* za razliku o nekih drugih pristupa polazi od ponašanja lidera. Dvije osnovne dimenzije koje se ukrštaju i koje su osnov ovog pristupa su: ponašanje usmjereno na zadatke i ponašanje usmjereno na odnose, a svrha je da se objasni kako lideri kombinuju ove dvije vrste ponašanja da bi zaposlene usmjerili ka postizanju zadatih ciljeva.

Poznata istraživanja zasnovana na "style approach" pristupu sprovedena su na Univerzitetima u Ohaju i Mičigenu i Blakeova i Mountonova istraživanja. Istraživanje na Univerzitetu u Ohaju definisalo je dva osnovna stila liderstva: strukturisanje i uvažavanje. Kod *strukturisanja* ponašanje menadžera usmjereno je na organizaciju posla, raspodjelu odgovornosti, definisanju rokova za radne zadatke, dok *uvažavanje* podrazumijeva izgradnju drugarskih odnosa, poštovanje i povjerenje na relaciji menadžer zaposleni [1]. Istraživači Univerziteta u Mičigenu, posebnu pažnju su posvetili uticaju koje ponašanja lidera ima na performanse u malim grupama. Dva tipa liderskog ponašanja su: orijentacija na zaposlene i orjentacija na proizvodnju, sa posebnim akcentom na tehnički i proizvodni aspekt [2], [3], [4]. U početku su se ova dva aspekta posmatrala kao dva kraja istog kontinuuma, da bi vremenom istraživanja pokazala da se oba ponašanja posmatraju kao dvije nezavisne liderske orjentacije [5].

Blake i Mountan uvode koncept Menadžerska mreža sa dvije osnovne dimenzije koje se ukrštaju i to: orjentacija menadžera na zadatke, gdje menadžer posmatra zaposlene kao sredstvo za obavljanje poslova i orjentacija menadžera na ljude gdje se polazi od uvjerenja da jedino zaposleni koji su zadovoljni optimalno obavljaju posao za koji su zaduženi. Menadžerskom mrežom je definisano pet osnovnih stilova liderstva [6]: Autoritarni menadžment - lider je zahtjevan, voli kontrolu i sve je podređeno ostvarivanju dobrih rezultata; Country Club menadžement - lideri su kooperativni, nijesu skloni konfliktima i stvaraju pozitivnu atmosferu; Oslabljeni menadžment - lider se ponaša nezainteresovano i povučeno; Kompromisni menadžment - lider daje prednost srednjim rješenjima, ublažava nesuglasice i ne obraća pažnju na osude, sve u interesu „progresa"; Timski menadžement - lider podstiče učešće, rezjašnjava prioritete, otvoren je za sugestije, aktivno učestvuje u rešavanju problema.

Likertov „Sistem 4" definiše sljedeće stilove menadžera [7]: ekspoatatorsko autokratski, blagonaklono autokratski, konsultativni i participativni [7]. Levin i saradnici sa Univerziteta Ajova, dali su najjednostavniju klasifikaciju stilova liderstva [8]: autokratski, demokratski i liberalni.

2. MENADŽERSKA MREŽA NA PRIMJERU CRNOGORSKOG BANKARSKOG SEKTORA

3.1. Metodologija istraživanja

Predmet istraživanja rada je da se utvrdi u kojoj mjeri su menadžeri usmjereni na zadatke, a u kojoj na međuljudske odnose, kao i koji stil liderstva menadžeri bankarskog sektora praktikuju, posmatrano sa dva vremenska perioda. Cilj rada je da se kreira adekvatan pristup za unapređenje odnosa menadžer-zaposleni, čime se utiče na poboljšanje poslovnog ambijenta, kao jednog od faktora za uspješno poslovanje.

Hipoteza od koje se polazi glasi: *Stil liderstva koji menadžeri primjenjuju kreira poslovni ambijent i reflektuje se na kvalitet poslovanja i međjuljudske odnose u kompaniji. Unapređenje odnosa između menadžera i zaposlenih doprinosi većem zadovoljstvu zaposlenih što pozitivno utiče na poslovni ambijent, lojalnosti zaposlenih i njihovo zalaganje pri obavljanju poslovnih zadataka, što je jedan od faktora koji doprinosi ostvarenju boljih poslovnih rezultata i konkurentske prednosti.*

Istraživanje je sprovedeno anketnom metodom, putem posebno dizajniranog upitnika prilagođenog Menadžerskoj mreži i ocjeni stilova liderstva; obuhvatilo je uzorak od 268 ispitanika, koji obavljaju izvršne poslove u bankarskom sektoru. Za potrebe istraživanja korišćen je kvota uzorak, a istraživanje je vršeno terenski u periodu januar/februar 2019. godine na teritoriji Crne Gore.

Upitnik se sastojao iz tri dijela:
- Prvim djelom su prkupljeni opšti podaci o ispitanicima;
- Drugi dio mjeri usmjerenost menadžera na zadatke i na međuljudske odnose, kroz 20 ponuđenih tvrdnji, gdje svaku tvrdnju prati petostepena Likertova skala, kojom se izražava stepen slaganja/neslaganja;
- Treći dio je prilagodjen Likertovom „Sistemu 4“, za određivanje stilova liderstva menadžmenta.

Upitnikom su prikupljeni podaci o stavovima ispitanika za dva vremenska perioda (2019. i 2016.g). Da bi podaci bili uporedivi birani su ispitanici koje imaju radni staž tri i više godina u bankarskom sektoru.

4. REZULTATI ISTRAŽIVANJA

Deskriptivnom statistikom je utvrđeno da je uzorkom obuhvaćeno nešto više ispitanika muškog pola (50,37%). Ispitanici pripadaju jednoj od pet starosnih grupa i to: do 25 godina 0.75% uzorka; od 26-35 godina - 29,10%; od 36-45 godina - 34,70%; od 46-55 godina -17,16%; 56 i više godina starosti 18,28% uzorka.

U anketi je najviše zastupljeno ispitanika sa visokom školskom spremom (58,21%), zatim slijede ispitanici sa srednjom školskom spremom (33,58%) i najmanji procenat je ispitanika sa postdiplomskim obrazovanjem (8,21%).

Za potrebe ispitivanja uzete su u obzir i godine radnog staža ispitanika: od 3-10 godina ima 22,01% ispitanika; od 11-17 godina ima 29,48% ispitanika; od 18-25 godina ima 32,84% ispitanika; 12,31% čine ispitanici sa radnim stažom od 26-33 godina, dok je među anketiranima bilo 3,36% ispitanika koji imaju više od 34 godina radnog staža.

Usmjerenost menadžera na zadatke ili pak odnose utvrđena je primjenom Menadžerske mreže. Usmjerenost na rezultate pokazuje na koji način menadžment donosi odluke o politici razvoja novih proizvoda/usluga, pitanja vezana za radni proces, nivo opterećenja zaposlenih i sl. Usmjerenost na međusobne odnose pokazuje u kojoj mjeri menadžment doprinosi izgradnji povjerenja, promovisanju individualnih vrijednosti zaposlenih, obezbjeđivanju dobrih radnih uslova i adekvatne naknade, promovisanju dobrih međuljudskih odnosa i sl. [6].

Tabela 1: Usmjerenost lidera na zadatke

Ponašanje lidera	2019. godina	2016. godina
Lider govori članovima grupe šta treba da urade	4,01	3,54
Lider određuje standarde za radni učinak članova grupe	3,98	3,56
Lider sugeriše kako riješiti problem	4,12	3,48
Lider jasno predočava svoje stavove drugima	4,13	3,54
Lider osmišljava plan aktivnosti grupe	4,02	3,56
Lider određuje uloge i odgovornosti članova u grupi	4,14	3,60
Pojašnjava sopstvenu ulogu unutar grupe	4,03	3,47
Planira kako bi posao trebalo da se obavi	4,05	3,54
Određuje kriterijume za to šta se očekuje od grupe	3,99	3,53
Podstiče članove grupe da obavljaju visokokvalitetan posao	4,09	3,50
UKUPAN PROSJEČNI REZULTAT	40,57	35,33

Izvor: Istraživanje autora

Rezultati sprovedene ankete pokazali su da je tokom 2019.g. menadžment crnogorskih banaka imao visok rezultat usmjerenosti na zadatke (40,12). Taj rezultat prema iskustvima ispitanika u periodu od prije tri godine bio je umjeren (36,40). Posebno se primjećuju visočije prosječne ocjene u tekućoj u odnosu na perod od prije tri godine za tvrdnje koje se odnose na jasno predočavanje stavova menadžera prema zaposlenima, jasnog sugerisanja za rešavanje problema, kao i podsticanja zaposlenih da obavljaju kvalitetno radne zadatke.

Tabela 2: Usmjerenost lidera na međuljudske odnose

Ponašanje lidera	2019. godina	2016. godina
Lider se ponaša prijateljski prema članovima grupe	3,63	3,49
Pomaže drugima da se prijatno osjećaju u grupi	3,61	3,47
Otvoren je za sugestije drugih	3,69	3,44
Korektno se ponaša prema drugima	3,65	3,60
Njegovo ponašanje prema članovim agrupe je predvidljivo	3,68	3,55
Aktivno komunicira sa članovima grupe	3,71	3,51
Pokazuje brigu za dobrobit drugih	3,65	3,49
Pokazuje fleksibilnost u donošenju odluka	3,55	3,49
Iskazuje svoja razmišljanja i pokazuje osjećanja članovima grupe	3,59	3,49
Pomaže članovima grupe da se usaglase	3,64	3,48
UKUPAN PROSJEČNI REZULTAT	36,40	35,01

Izvor: Istraživanje autora

Što se tiče usmjerenosti na odnose, menadžment crnogorskih banaka u 2019. g. ima umjeren rezultat usmjerenosti na odnose (36,40). Taj rezultat prema iskustvima ispitanika u periodu od prije tri godine bio je takođe umjeren (35,01). Primjećuje se da su prosječne ocjene po pojedinačnim tvrdnjama ujednačene u oba posmatrana perioda.

Tabela 3: Menadžerska mreža i stil liderstva

	Ukupan rezultat	
	2019.	***2016.***
Usmjerenost na zadatke	40,57	35,33
Usmjerenost na odnose	36,40	35,01
Stil liderstva	*AUTORITARNI MENADŽMENT*	*KOMPROMISNI MENADŽMENT*

Izvor: Istraživanje autora

Iz dobijenih rezultata zaključuje se da je Autoritarni menadžment stil liderstva karakterističan za 2019.g., za koji je karakteristično snažno naglašavanje zadataka i zahtjeva posla, a slabije naglašavanje uloge ljudi. Menadžer daje instrukcije u vezi sa zadacima, zahtjevan je, energičan, autoritativan, voli kontrolu. [6]. Stil liderstva koji su medažeri praktikovali u 2016.g. bio je Kompromisni menadžment, koji karakteriše umjerena usmjerenost i na zadatke i na ljude. Menadžer daje prednost srednjim rešenjima, ublažava nesuglasice i ne obraća pažnju na osude, sve u interesu „progresa“ [6].

Postavlja se pitanje razloga promjene stila liderstva u periodu od tri godine. U procesu ostvarivanja strateških i operativnih ciljeva, menadžment je prinuđen da mijenja svoj odnos prema zaposlenima i prema radnim zadacima, u cilju efikasnijeg i efektivnijeg poslovanja. Od adekvatnog izbora kadrova i delegiranja autoriteta u velikoj mjeri može zavisiti i dalja sudbina i poslovni uspjeh preduzeća u sve konkurentnijem okruženju [9].

Rezultati trećeg dijela ankete odnose se na stilove liderstva, pri čemu su ispitanici birali jednu od ponuđene 4 opcije koja najviše odgovara po karakteristikama stilu upravljanja menadžmenta:

- Eksploatatorsko autokratski: Odluke donosi brzo i saopštava ih podređenima jasno i odlučno, očekuje lojalnost;
- Blagonaklono autokratski: Odluke donosi brzo, ali prije nego ih sprovede pokušava da ih objasni njegovim podređenim;
- Konsultativni: Konsultuje sa podređenima prije nego donese odluke, sluša njihova mišljenja i uzima ih u obzir, a zatim donosi odluku;
- Participativni: Obično saziva sastanak podređenih kada treba donijeti važnu odluku. Iznosi problem pred grupu i zahtijeva diskusiju, prihvata većinsko mišljenje kao odluku. [7]

Tabela 4: Stilovi liderstva na primjeru menadžmenta crnogorskih banaka

	Ukupan rezultat	
	2019.	***2016.***
Ekspolatatosko – autokratski stil	31,34%	19,03%
Blagonaklono – autokratski stil	33,21%	30,34%
Konsultativni stil	18,28%	34,21%
Participativni stil	17,16%	16,42%

Izvor: Istraživanje autora

Rezultati su pokazali da je sada najviše zastupljeni Blagonaklono-autokratski stil (33,21%) i Eksploatatatorsko-autokratrski (31,34%), zatim slijedi Konsultativni stil (23,25%), dok je Participativni stil najmanje zastupljen (17,16%). Za period od prije tri godine najzastupljeniji stil liderstva bio je Konsultativni stil (34,21%) i Blagonaklono-autokratski (30,34%), zatim slijedi Eksploatatorsko-autokratski (19,03%), dok je najmanje zastupljen Participativni stil liderstva (16,42%). Možemo zaključiti da u oba perioda najmanje je zastupljen Participativni stil liderstva u kome menadžment iznosi problem pred grupu i uvijek prihvata većinsko mišljenje zaposlenih. Stil liderstva koji se izdvaja kao bitan, a karakteriše oba perioda je Blagonaklono-autokratski stil liderstva. Rezultati ovog dijela istraživanja, potvrđuju rezultate dobijene u dijelu ankete koji se odnosio na Menadžersku mrežu, što ukazuje da su ispitanici pri anketiranju, davali nepristrasne odgovore u skladu sa situacijom koja je karakterisala i koja karakteriše poslovnu atmosferu u bankarskom sektoru Crne Gore.

5. ZAKLJUČAK

U procesu ostvarivanja poslovnih ciljeva, menadžment procjenjuje potrebu mijenjanja svog stila upravljanja u cilju efikasnijeg i efektivnijeg poslovanja. Rezultati istraživanja pokazuju da su menadžeri sada više usmjereni na zadatke nego na međuljudske odnose, a posebno se ta usmjerenost primjećuje pri jasnom sugerisanju za rešavanje problema, i podsticanju zaposlenih da kvalitetno obavljaju poslove. Dokazana je postavljena hipoteza da stil liderstva koji menadžeri primjenjuju kreira poslovni ambijent i reflektuje se na kvalitet poslovanja i medjuljudske odnose u kompaniji, što je ujedno i jedan od faktora koji doprinosi ostvarenju boljih poslovnih rezultata i konkurentske prednosti. Doprinos rada se ogleda u tome što se stiče uvid da se dominantni tip stila liderstva menadžera u bankarskom sektoru, promjenio sa Kompromisnog menadžemta na Autoritarni menadžment. Menadžeri najmanje praktikuju da probleme sa kojima se susreću iznose pred grupu i da prihvate većinsko mišljenje zaposlenih. Dobijeni rezultati daju dobru osnovu za dalje praćenje i upoređivanje kako promjene stila liderstva, tako i njihovog uticaja na ukupni poslovni ambijent i ostvarivanje poslovnih rezultata.

LITERATURA

[1] Stogdill, R. (1974) *Handbook of leadership: A survey of theory and research*, New York: The Free Press
[2] Cartwright, D., &Zander, A. (1960) *Group dynamics research and theory*, Evanston, IL: Row, Peterson
[3] Likert, R. (1967) *The human organization and: Its management and value*, New York: Mc Graw-Hill
[4] Bowers, D.G., &Seashore, S.E. (1966), Predicting organizational effectiveness with a four-factor theory of leadership, *Administrative Science Quarterly*, 11 238, -236
[5] Yukl, G. (1994), *Leadership in organizations*, Englewood Cliffs, NY: Prentice Hall
[6] Northouse, G. P. (2008) *Liderstvo: teorija i praksa*, četvrto izdanje, Data Status, Beograd
[7] Likert, R., Likert, G. J. (1976), *New Ways of Managerial Conflicts*, McGraw-Hill Book Company, New York
[8] Lewin K. (1977) Frontiers in Group Dynamics, *Human Relations* Vol 1, pp.143-153
[9] Bulatović, D. & Jokić, B. (2017) Operativni menadžment u malom biznisu, *Ekonomski izazovi*, Godina 6, Broj 12, str. 105-111

[10] Kuzman, S. (2014) Istraživanje dominantnih stilova liderstva primjenom Likertovog modela u hotelskim preduzećima, *Sinteza, Međunarodna naučna konferencija Univerziteta Singidunum*, Beograd, pp. 1049-1053
[11] Erhardt, N., Carlos, M. R., Heckscher, C. (2016) Am I doing the right thing? Unpacking workplace rituals as mechanisms for strong organizational culture, *International Journal of Hospitality Management* Vol.59, pp.31-41
[12] Simović, O., Raičević, M., & Milica K., "Uticaj stila liderstva na organizacionu kulturu turističkih preduzeća u Crnoj Gori", *Ekonomski izazovi, broj 14* (vol 2), Internacionalni Univerzitet u Novom Pazaru, pp 14-27

BUSINESS TO CUSTOMER (B2C) E – COMMERCE IN EU AND REPUBLIC OF CROATIA

Sandra Mrvica Mađarac[1]
Marina Piroš[2]

DOI: https://doi.org/10.31410/EMAN.2019.85

Abstract: *Internet commerce has experienced a major growth in the EU and Republic of Croatia during the last decades: it is a product of a digital age and because of its ease of use and low cost, it has become available to a large number of companies and individual buyers with a growing tendency. Internet commerce focuses on customer requirements, creates new business models, simplifies the sales-purchasing process, and as a result of globalization, provides a huge market. The EU has recognized the importance and profitability of the Internet trade, therefore is has adopted a legal framework, strategy and operational objectives for its further development. This paper presents and analyzes the growth of Internet commerce and its application in individual member states through the use of the Eurostat data. In this paper, we've approached to the concept and advantages of Internet commerce, and we've shown and analyzed the B2C e-trade in the EU and Republic of Croatia, i.e. its market segments and the behaviour of its consumers. The research results have shown the high growth of Internet commerce in the EU, prospects of further development, and a market segment that mostly have been using Internet commerce is the active and highly educated population.*

Keywords: *Internet commerce, B2C e-trade, EU, Republic of Croatia*

1. INTRODUCTION

Internet commerce was created as a result of symbiosis of the technology and the availability of Internet connections in households. Because of its many advantages (in particular, it saves time for the buyers and allows savings to the sellers) it has become one of the most profitable forms of trade. Internet trade in the EU has become one of the goals of the EU's economic development, and the EU has also launched the Digital Agenda for Europe in its pursuit for the sustainable economic and social benefits of a single digital market. In addition to the theoretical approach to the concept of Internet commerce, this paper analyzes the rights of online consumers, the goals of the Digital Agenda for Europe, and also the Eurostat data about B2C Internet commerce, its representation and buying habits of B2C consumers in the EU and Republic of Croatia.

2. CONCEPT OF E-COMMERCE

Electronic commerce, i.e. electronic delivery of products, services or information and electronic payment using a computer, or business that encompasses all forms of information exchange and business transactions that are carried out through the information communication technology, is considered one of the most propulsive forms of modern business [1]. Electronic trade is a process of buying, selling or exchanging products, services and information's through a publicly available computer network, the Internet, and offers a great reduction in costs and time when

[1] Polytechnic Veleučilište „Lavoslav Ružička“ Vukovar, Županijska 50, Vukovar, Croatia
[2] Oaza, d.o.o., Croatia

proceedings transactions [2]. According to Andam, E-commerce only refers to the conduct of trade activities through the Internet and cannot be identified with the wider concept of electronic business, which refers to the intensive running of all business activities electronically [3].

The concept of electronic purchasing can be defined from four perspectives [4]:
1. communication perspectives: electronic commerce enables the provision of information, products / services or means of payment through the public telephone lines, publicly available computer networks or by some other electronic means,
2. perspectives of business processes: electronic commerce represents the application of a new technology towards the automation of business transactions as well for the need of the introducing of the business improvements,
3. perspectives when providing services: E-commerce is a medium by which enterprise, users and management strive to reduce the cost of providing services by increasing the quality of the goods and increasing their speed, and speed of their delivery,
4. virtual perspectives: electronic commerce offers the ability to purchase and sell products, services and information over the Internet and its related services.

There are two forms of E-commerce: ''pure'' and ''partial''. Pure E-commerce is the one form in which all components such as products, processes and modes of delivery exist in digital form, while for the partial E – commerce it is characteristic to have at least one component that exists in a digital form [5].

Although some sources state that the first online sale was made in the 1970s, the real development of the Internet store was launched in the 1990s, when E-bay, Amazon and Alibaba online stores were established. We've witnessed the origins of the so-called ''dot.com'' companies that, due to inflating of the value of companies, developed at a high speed together with the Internet and appertain technology. E-bay, Amazon and Alibaba survived the crisis on the Internet during 2000, because they had clear goals; they were customer-oriented, they knew how to provide the customer with value-added and enjoyable shopping experience, which today also makes them the world's online sales leaders [6].

E-commerce can further be divided into two major areas - trade between business entities (Business to Business, B2B), and trade oriented toward the consumer market for the purpose of everyday (non-business) consumption (Business to Customer, B2C) [7]. In addition to the basic two, there are other models of electronic commerce as well, and they differ from participants participating in transactions, namely:
- C2B - Customer to Business,
- C2C - Customer to Customer,
- B2G - Business to Government, and
- G2B - Government to Business [8].

Business to Business (B2B) trade may be defined as an electronic commerce that takes place between business subjects, and faces the exchange of goods and services between the companies. Over time, the B2B form of trade has become more and more important because of its simplicity and speed, which is why more and more companies are starting to adopt it [2]. The most important models of B2B commerce are: catalogues, auctions, stock exchanges and communities [7].

Business to Customer (B2C) represents the retail trade where a large number of customers buy through the electronic purchases, which to the E-commerce marketers represent a huge market

potential. The B2C trading method takes place through an electronic catalogue where the customer, with the help of pictures, descriptions and drawings, learns about the desired product, put it into an online shopping cart and subsequently executes (ordered) the purchase. This trade niche allows people to sell their products on the remote markets, and with its features it reduces business costs and precisely for this reason, it predicts that this form of trade will be important in the area of retail sales in the future. Except for these two models, a significant place also occupies Customer to Customer (C2C) service where users sell goods to the other users. C2C is a model in which 90% of them constitute the auctions and the largest and most famous is the E-bay. The Internet commerce has many advantages for both buyers and the sellers. Some of the benefits that customers make when purchasing over the Internet are: time savings, possibility of shopping during 24 hours a day, large market (global) and a greater choice of products and services, availability of product information, exchange of experiences with other customers, the possibility of buying such products that are not available on the local market; the products are delivered to the customers at their home address [7]. The benefits that Internet commerce enables to the sellers are: cost reduction, primarily because there is no need for a large workforce, market is larger, marketing is more efficient, customization of customer requirements is maintained, there is reduced cost of communication with the customers, maintaining customer contact, and maintaining of the competitiveness of smaller businesses [6].

Although the Internet store has many advantages, it has its shortcomings, such as changing of the technology, investment in the technology, staff training, lack of security and trust in this form of purchase, lack of Internet connections in some areas, some products may not be suitable for such form of sales, existing cultural obstacles and different customs regimes [7]. The biggest drawback of Internet commerce is distrust of customers in this way of selling; there is a fear because of the lack of privacy, fear of customers from using their private data by the sellers, mistrust in the process of card payments, and inability to see the product in reality. PayPal has solved this problem by securing the execution of all customers' transactions of (payments and payouts) with the help of the customer's e-mail address, without sharing credit card numbers to the third parties, or in this case, with the online stores.

How the potential for misuse of information technology exists, an appropriate system of protection against information technology abuses needs to be developed. Such a system should have at least five forms of protection:

- Identification, authentication and user authorization,
- Intranet protection against unauthorised user's access,
- Antivirus protection,
- Confidentiality of data, and
- Privacy protection of users [8].

3. E- MARKET IN THE EU

The European Union has recognized the great economic potential of online trade and an increasing number of businesses have focused their business activities on the Internet business. The history of development of the Electronic commerce in the European Union is long, and after almost twenty years, a strong regulatory framework has been established in the Internet trade sector. During recent years, Internet commerce has become the main driver of the growth in the European retail sector.

The goal of a single digital market in the EU is to remove regulatory barriers among its members, and the digital market is foreseen as the future of the European economy. The European economy is trying to kick-start using the Digital Agenda for Europe, which was launched in May 2010, by providing sustainable economy and social benefits of a single digital market. In 2014, 14% of small and medium-sized enterprises in the EU had obtained sales through the Internet. Although more and more people use the Internet in the EU, almost 50% of the EU population has insufficient digital skills needed for today's working environment [10].

Every online consumer in the European Union has rights that protect citizens when using the Internet network and services. The rights of online consumers, along with the basic consumer rights, are related to [5]:

- the right to price transparency - the consumer has the exact product / service level indicated, which means that the prices displayed on the Internet store must include the value added tax as well as the other tied expenses that make up the final price,
- the right to refund - in the case when the consumer returns goods to the merchant, the merchant is obliged to make the full refund for the value of the goods within 14 days,
- the right to file a complaint and terminate the contract - prior to the purchasing process, the buyer has the right to be informed of the termination of the contract within a period of 14 days so that the obligations of the consumer and the trader arising from that right are clearly disclosed; buying when using Internet trade is considered as a buying at a distance and therefore is considered that a contract has been agreed between the trader and the consumer; a buyer has the right to submit a one-sided termination contract form, which must be downloadable and available on the Internet commerce pages, which must also be unique throughout the European Union market, and on the Internet commerce Website the retailer is obliged to allow the consumer to file in a complaint,
- the right to a durable, straightforward and unilateral approach to the information's about the trader - the consumer has the complete rights to know the data of the trader where he intends to make a purchase; therefore, the trader is obliged to provide all the information's about his business on the Web pages of his Web store,
- the right for personal data protection - the buyer, when buying through the Internet commerce is entitled to the full protection of personal information that must be available to the consumer at any time,
- the right to accurate, thorough and understandable information's about the key product or service - the consumer has the right to get from the merchant exactly what he has purchased and accordingly, the descriptions of the product / service must be thorough and precise,
- the right to relevant payment information prior to the execution of an Internet transaction, i.e. the payment: the consumer has the right to inspect the relevant information pertaining to the payment service provider that is responsible for the transaction, and after the transaction have been done, the consumer has the right to receive a certificate - stating the amount and date of the transaction together with the breakdown of the paid costs,
- the right to protection from unfair trading practices - an online consumer, as well as any other consumer, has the right to appeal to a trader, who in the course of his business practice unfair trading,
- the right to deliver goods or services within 30 days period - unless otherwise agreed with the trader, the online consumer has the right to receive the purchased goods / services within 30 days without any disadvantages; if the goods received are defective, the online consumer has the right to repair or to replace the goods received. Here, the online

customer may ask the retailer to request a reduction in the price or for a refund if the trader fails to repair or dispose of the faulty goods,
- the right to a warranty - as any other consumer, the online consumer has the right to a legal guarantee for a minimum of two years from the time of delivery of the purchased goods.

The Commission will complete the Digital Single Market on the following ways [9]:
- by modernizing consumer rules for the online shopping,
- by providing support for the introduction of the high-quality Internet infrastructure on which all sectors of the cross-border economy are based,
- by modernizing copyright regulations which will take into account the cultural diversity,
- by strengthening entrepreneurship and by encouraging incentive start-up frameworks,
- by developing and implementing measures for a more reliable Europe on the Internet.

The European Commission in 2015 adopted the Digital Single Market Strategy for Europe. The Digital Single Market Strategy for Europe consists of the following operational goals: better access to consumers and enterprises (enactment of the cross-border trading rules that the consumers can trust), favourable cross-border delivery of packages, prevention of location-based restrictions, reduction of VAT-related barriers to sales thereby ensuring equal conditions for digital networks and innovative services, by exploiting the full potential of digital economy growth, and by investing in a digital single market [10].

4. ANALYSIS OF B2C ONLINE MARKETS IN THE EU

According to the Eurostat statistics, the growth rate of online trade in 2014 was 18,4%, and in 2015 it was 18,6%. In 2016, even one among the five companies in the European Union has been using the Internet store. In 2016, the Internet store occupied 18 % in the total turnover of enterprises with 10 or more employed.

Christian Verschueren, director of EuroCommerce, a European organization that represents the trade interests at the EU level, said that digitalisation of retail and wholesale fundamentally changed the trade sector, therefore creating new business opportunities and models, new jobs and creating new forms of interaction with the consumers. Also, he points out that there are a lot of more online consumers and sellers for which the European Union needs policies to foster the development of Internet commerce, and to enable consumers and sellers to exploit the potential of 500 million European citizens [5].

Although the Americans Internet shops such as Amazon have an impact on Internet commerce in Europe, Europe also has its own large and successful Internet stores. Western European countries stand out as the countries with the largest Internet trading market, where the United Kingdom occupies 33% of the total Internet trade in the European Union. On the list of 50 of the largest online stores in 2014, released by Deloitte, are 19 Internet shops located in the EU (Table 1) [5].

From Figure 1 it can be seen that Internet trade in the EU is growing from 2012. The countries with the highest number of purchases in 2012 and 2017 were: United Kingdom, Sweden, Denmark, Luxembourg and Germany, and the EU member states where the goods were least purchased through Internet trade are Portugal, Italy, Croatia, Cyprus, Bulgaria and Romania.

Table 1. 19 European retailers listed on the list of the 50 largest online stores

e-50 sales rank FY2014	Top 250 retail revenue rank	Name of company	Country of origin	FY2014 ecommerce retail sales (millions of $)	FY2014 ecommerce retail sales % of total retail revenue	FY2014 ecommerce growth rate	FY2011-2014 ecommerce CAGR
5	76	Otto	Germany	8,397	65.4%	5.6%	6.7%
6	5	Tesco	UK	6,504	6.5%	20.0%	14.6%
9	15	Casino	France	4,606	7.1%	20.1%	15.8%
15	115	Home Retail Group	UK	3,241	34.9%	8.0%	8.4%
17	n/a	Zalando	Germany	2,943	100.0%	25.7%	63.1%
18	63	John Lewis	UK	2,854	18.0%	24.1%	29.4%
21	22	E. Leclerc	France	2,605	5.4%	33.3%	69.1%
24	155	Next	UK	2,488	38.1%	13.3%	11.8%
27	n/a	Shop Direct Group	UK	2,331	86.0%	3.6%	5.7%
28	n/a	Vente-Privée	France	2,311	100.0%	8.0%	17.5%
30	75	Dixons Carphone	UK	2,081	16.0%	19.4%	29.7%
31	8	Metro	Germany	2,036	2.4%	20.2%	56.9%
35	28	J Sainsbury	UK	1,775	4.7%	7.0%	12.9%
36	6	Carrefour	France	1,728	1.8%	n/a	n/a
38	24	Ahold	The Netherlands	1,684	3.9%	16.7%	40.6%
39	n/a	ASOS	UK	1,579	100.0%	26.7%	25.6%
40	n/a	Ocado	UK	1,57	100.%	19.8%	16.6%
41	13	Auchan	France	1,534	2.2%	1.7%	11.3%
45	n/a	Ulmart	Russia	1,3	100.0%	50.0%	63.2%

Source: www.ecommercenews.eu, uploaded 15.05.2018.

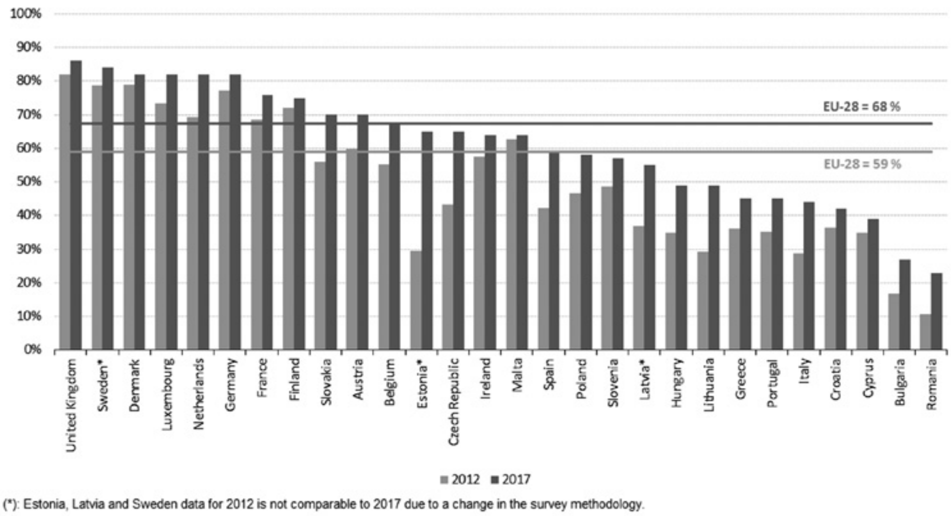


Figure 1. Internet users who bought or ordered goods or services for private use during the previous 12 months: figures are for the years 2012 and 2017 (expresses as a % of Internet users)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_and_ online_purchases,_2017_(%25_of _individuals).png , uploaded 21.05.2018.

From Figure 2 is observable how the male population more purchases goods through the online shops, and according to the population they mostly fit into the category from 25 to 44 years of age. Mostly, the Internet customers are educated, and according to their profession, 73 % of Internet buyers are employed or self-employed, or they are students (70%).

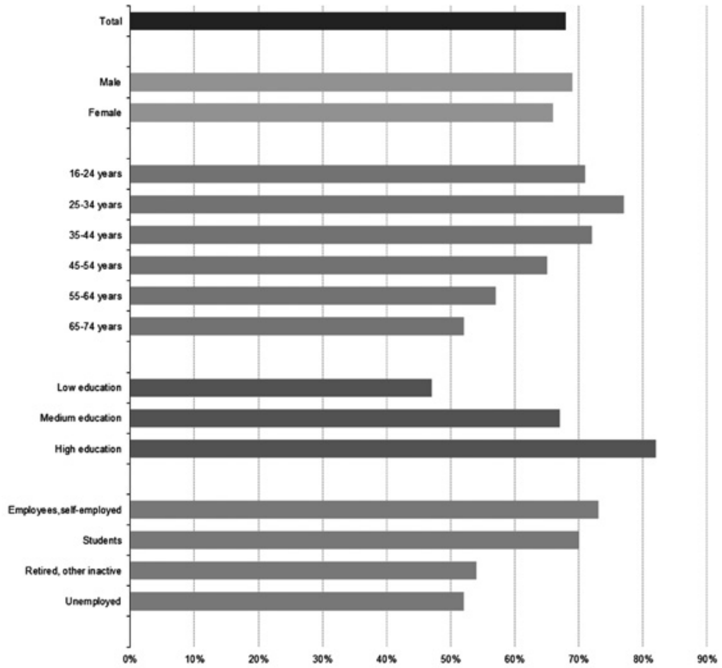


Figure 2. Internet users who bought or ordered goods or services for private use during the previous 12 months, EU-28, 2017 (expressed as % of Internet users)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_ and_online_purchases,_2017_(%25_of _individuals).png , uploaded 21.05.2018.

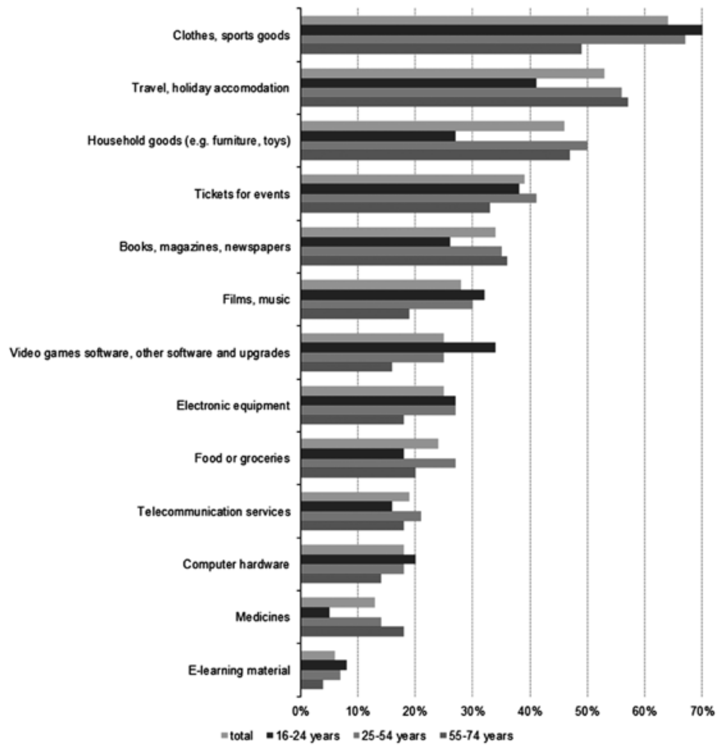


Figure 3. Online purchases, EU28 for the year 2017, (expressed as % of individuals who purchased or ordered goods or services over the Internet for private use during the previous 12 months)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_ and_online_purchases,_2017_(%25_of _individuals).png , uploaded 21.05.2018.

Figure 3 shows the products purchased through the Internet store. Most of the purchased goods are clothing and sports equipment (64%), travel and holiday accommodation (53%), household equipment (46%), and tickets for the events (39%).

Figure 4 shows the number of B2C Internet purchases in the course of three months in 2017. The largest number of customers bought 1-2 times during these three months (most of them belong to the age group of 16-24, and also customers in the group of 55-74 years of age); the lowest number of buyers bought ten times or more, and the majority of such customers are in the age group from 25-54 years of age.

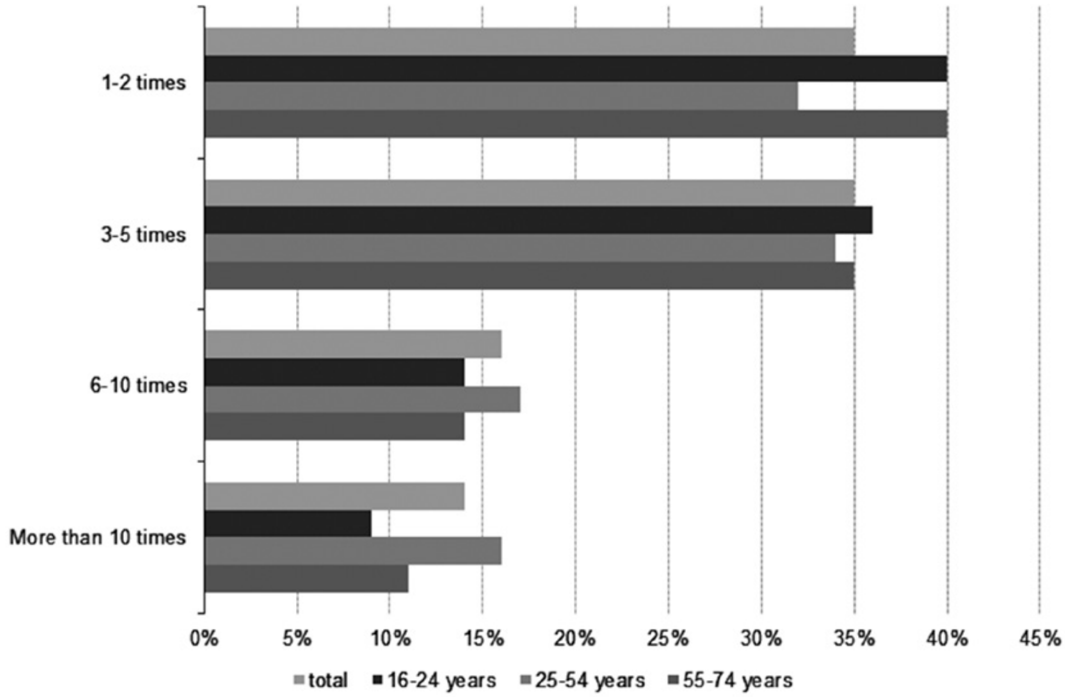


Figure 4. Number of times people shopped online, EU-28, 2017
(expressed as % of individuals who bought or ordered goods or services
over the Internet for private use during the previous 3 months)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_ and_online_purchases,_2017_(%25_of_individuals).png , uploaded 21.05.2018.

The largest percentage of the EU population buys in the price tag category of 100-499 Euros, and through the Internet mostly purchases the age group from 25-54 years of age (what is expected, because they belong to a working-active population). The age group of 16-24 years of age spent, in most cases, 50-100 Euros.

The indicated reasons for the avoidance purchasing on the Internet are due to the fact that the product cannot be seen-are present in the highest percentage (69%); they are followed by the existence of insecurity in payment (25%), lack of knowledge required for the Internet commerce (19%), mistrust in reclamation and product return (16%), lack of appropriate payment cards (12%), and potential delivery problems (6%) (Figure 8.).

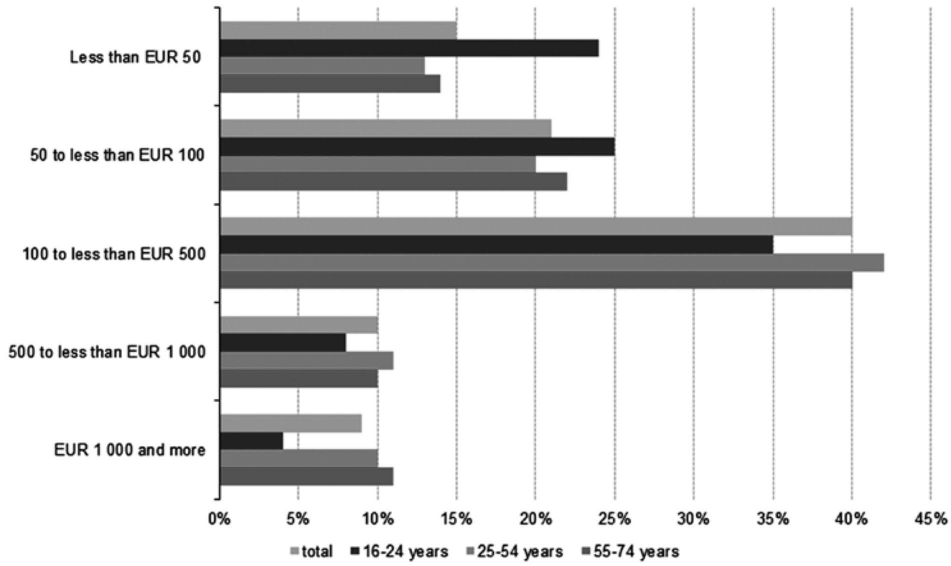


Figure 5**.** Money spent on online shopping for EU-28, 2017 expressed as % of individuals who bought or ordered goods or services over the Internet for private use during the previous 3 months)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_ and_online_purchases,_2017_(%25_of _individuals).png , uploaded 21.05.2018.

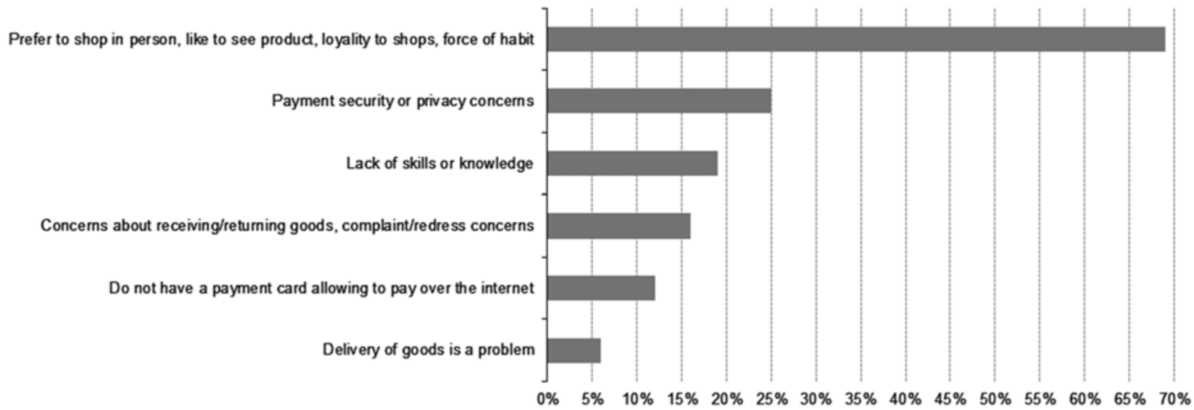


Figure 8. Reasons for the customers' avoidance of purchasing on the Internet, sample EU-28, and data are related for the year 2017 (expressed as % of individuals who did not purchase or order goods or services over the Internet for the private use during the previous 12 months)
Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Internet_use_ and_online_purchases,_2017_(%25_of _individuals).png , uploaded 21.05.2018.

4. B2C ONLINE MARKETS IN REPUBLIC OF CROATIA

The final official data on online trade in the Republic of Croatia were published in 2011 and they are posted on the Website of the Ministry of Economy, Entrepreneurship and Crafts. The share of the ICT sector in GDP of the Republic of Croatia was 4,3%, therefore 27% of the companies were buying online and 25% of them sold online. The growth of the IT market has been record-

ed at an annual rate of 6,1%, and the share of Internet purchase value in total traffic amounted 18%. The amount of online expenditures during the course of six months was 401 million Euros. When using the Internet is sold: accommodation, preparation and serving of food (46%), ICT (41%), information and communication (40%), real estate's (27%) and wholesale and retail sector goods (26%). Of the 4,3 million citizens that are now living in the Republic of Croatia, 2,75 million of them use the Internet and 980 000 of its inhabitants have been purchasing goods online. The average consumption within six months per one e-buyer amounted 227 Euros [5].

In accordance to the survey that was investigating the Web shops in the Republic of Croatia and association eCommerce Croatia that was conducted in 2017, Web retailers sell physical products (79%), technology and equipment (32%), food products (14%), fashion (14%), toys and gifts (6%) and children's equipment (6%). Among 48% of Web retailers the annual turnover of the Web shops in the Republic of Croatia amounts to 300 000 Kuna's, while 20% of Web retailers turnover amounts 1-3 million Kuna's; the figure for the other Web shops are from 300 000 kn to 1 million Kuna's (14%), and also there are some retailers with the turnover of more than 3 million Kuna's (14%) [11].

5. CONCLUSION

Internet commerce represents a major challenge and potential for the EU trade market, which is also recognized by the EU institutions. By adopting legal frameworks, the Digital Agenda and the EU Trade Growth Strategy, there is a prospect of further growth, especially due to the today's changing consumers buying habits. Internet commerce offers numerous opportunities to sellers and customers. Internet commerce is applied through different business models, and from all the said models, the most prominent are those between the two business entities and between a business entity and an individual customer. The research results in this paper indicate the potential of individual Member State to develop Internet commerce, the need to educate consumers who do not use the Internet commerce, the necessary additional marketing efforts in the development of Internet trade and targeted market segment of population that usually buy from the online stores and there spent most of their funds (members of the working-active population and the members of the highly educated population).

According to the Eurostat's forecasts, given that the aforementioned full potential has not yet been achieved, online trade in the European Union will continue to record a positive growth. The latest Eurostat report (2017) shows the exponential growth of the Internet commerce in Europe, with a focus on the Southern Europe. Currently, the Republic of Croatia is at the bottom of the list of countries in the European Union in accordance to the usage of e- commerce, but because of its advantages, its utilization is steadily increasing.

REFERENCES

[1] Bahtijarević-Šiber, F., Sikavica, P., Pološki Vokić, N. (2008.). *Modern management*. Zagreb: Školska knjiga d.d.
[2] Babić, R., Krajnović, A., Radman Peša, A. (2011). Achievements of e-commerce in Republic of Croatia and in world. *Oeconomica Jadertina.* Vol.1., No 2., pp. 46-68.
[3] Andam., Z. R. (2003). E-commerce and e-business, http://www.apdip.net/publications/iespprimers/eprimer-ecom.pdf , uploaded 16.07.2013.

[4] Spremić, M. (2004). *Management and electronic business*. Zagreb: Narodne novine.
[5] Ministry of economy, entrepreneurship and crafts, http://potrosac.mingo.hr, uploaded 09.05.2018.
[6] Mueller J., Singh J. (2006). *Category management.* Zagreb: International centre for professional education.
[7] Ružić, D., Biloš, A., Turkalj, D. (2009). *e-Marketing.* Osijek: Faculty of Economics in Osijek.
[8] Panian, Ž. (2000.). *Electronic commerce*. Zagreb: Sinergija.
[9] European Commission (2014). *Digital agenda for EU.* https://ec.europa.eu/info/strategy_en, uploaded 11.05.2018.
[10] EUR – Lex, https://eur-lex.europa.eu/legal-content/HR/TXT/?uri=celex%3A12007P , uploaded 15.05.2018.
[11] eCommerce Hrvatska, https://ecommerce.hr/tag/ecommerce-istrazivanje/, uploaded 12.04.2019.

WORK BASED LEARNING IN THE INTER-REGIONAL AREA BETWEEN SLOVENIA AND NORTH-EASTERN ITALY

Mitja Stefancic[1]

DOI: https://doi.org/10.31410/EMAN.2019.97

Abstract: *This paper aims to investigate the development of Work based learning (WBL) programmes in higher and professional education in Slovenia and Italy. Albeit challenging the wrong assumption that WBL is the solution to the problem of youth unemployment, the paper evaluates the opportunity to develop exchange programmes of education mobility between Slovenia and North-Eastern Italian regions (such as Friuli Venezia Giulia and Veneto). Similar economic environments and shared cultural values in the cross-border area should stimulate the development of such programmes, which may be beneficial to young students not only in terms of future economic benefits (e.g. better positioning within the labour market) but also in terms of rising multicultural awareness and active citizenship.*

Keywords: *Work based learning, labour markets, education management, Slovenia, Italy*

1. INTRODUCTION

During the last few years both Slovenia and Italy have adopted a number of significant reforms in order to modernize professional education and the higher educational system. For instance, in 2017 apprenticeship has been reintroduced in Slovenia as an educational option for young people that wish to learn the competences and skills for a job. Moreover, scholars argue that schools in Slovenia and elsewhere should better cooperate with local institutions, public and private companies (Vogrinc, 2006). Similarly, a substantial reform has been put forward by Italy in 2015 (referred to as 'la Buona Scuola') with an aim to bring the educational system and the economy closer. The reform has been viewed quite favourably in highly industrialized regions such as Veneto, where the 'alternanza scuola-lavoro' programmes brought encouraging results (Ufficio Scolastico Regionale per il Veneto, 2018).

In many European countries young people seem to face a more demanding job market and fewer opportunities than the previous generations (Green, 2017). Arguably, with the side-effects from the 2007/08 global financial crisis, followed by a crisis in the real economy as well as due to the unintended consequences of pension reforms in some European countries (Boeri et al., 2016), the transition from school to work is nowadays a demanding task for many young persons, particularly for those who lack any work experience. In order to solve the above-mentioned problem, one of the strategies adopted by a number of European governments is the Work based learning (WBL) strategy, namely an educational strategy aiming at increasing the employability of young people by enabling them to get real-life work experience.

The aim of this paper is to discuss the viability and usefulness of transnational WBL programmes in the interregional area between Slovenia and the provinces of the Northern Italian regions such as Veneto and Friuli Venezia Giulia. The objective is twofold: on the one hand, to essentially stimulate critical thinking with regards to the application of WBL programmes on a transnational level; on the other hand, to provide some useful arguments for those educators

[1] CRPZ Univerza na Primorskem, Koper (Slovenia)

and policy makers who are putting their noble efforts in order to provide young people with both a sound education as well as with practical skills and thereby improving their opportunities to find a decent job.

2. THEORETICAL BACKGROUND

To start with, it is important to define the concept of Work based learning. The European Commission defines WBL as 'a fundamental aspect of vocational training' helping learners to 'acquire knowledge, skills and competences which are essential in working life' (European Commission, 2013, 5). Scholars such as Raelin define WBL in contrast to conventional learning methodologies: while conventional learning methodologies tend to be theory-based classroom experiences relying on explicit knowledge, WBL is defined as a strategy in which 'theory may be acquired in concert with practice' (Raelin, 1997, 564). According to some experts, WBL is to be understood as an educational strategy for high school students, useful to prepare them for citizenship and work (Bailey et al., 2004). Finally, the European Training Foundation provides the following definition of WBL: it is a type of learning that occurs 'when people do real work. This work can be paid or unpaid, but it must be real work that leads to the production of real goods and services' (ETF, 2014, 3).

Despite some accounts highlighting the fact that countries with apprenticeship training and WBL educational schemes tend to have lower levels of unemployment (Wolter, 2012), one needs to be cautious in deriving conclusions: evidence about that is still scarce. Even more importantly, education is only one of the many variables that influence the job market and job opportunities of individuals. Due to the large number of factors influencing the levels of a country's level of unemployment (Dore, 2005, 53), one can conclude that the idea to directly match low unemployment with educational programmes is simply misleading. Nevertheless, WBL could (and should) be modeled according to a number of important insights coming from labour economists who show the importance of encouraging young people to get some working experience early in their life in order to lower the risk of facing a hard time in the future.

Using data on Swedish youths graduating from vocational high schools in the recession years of 1991-1994, Nordstrom Skans (2011) shows the relationship between teenagers' first labour market experience and subsequent performance in the labour market. With reference to a large German administrative data set for 1975-2004, Schmillen and Moeller (2012) observe that lifetime unemployment is unevenly distributed among the studied population: in particular, they find that, for men, pursuing a disadvantageous occupation early in the professional career leads to a significantly higher amount of lifetime unemployment. In addition to this, based on German employer–employee data that track around 700,000 individuals over a 24 years' period, Schmillen and Umkehrer (2017) show that early career unemployment tends to increase the probability that unemployment is experienced by the same persons at a given time in the future.

3. METHODOLOGY

The research at the basis of the present paper was driven by the question of how to develop effective WBL programmes in the interregional area between Slovenia and North-East Italy. The methodology reflects the focus of the present paper on an interregional policy level. From this point of view, it is indeed different from other studies that apply a cross-national perspective in

order to assess WBL programmes or comparable educational strategies (e.g. Ryan, 2001). This choice is supported by the relative social and economic similarity of Slovenia and of both Italian regions located in the North-Eastern part of the country. In fact, it seems quite sensible to provide such a comparison rather than a comparison between the two countries, since they are quite different in terms of size, historical background etc.

Open-ended, partially structured interviews were conducted in order to obtain useful insights from respondents on the possibility to develop WBL programmes between Slovenia and North-East Italy in the years to come. Interviews with Slovene and Italian experts focusing on educational policies as well as with a number of managers serving at professionally oriented and technical schools were conducted between May and August 2018. Professionals working in education and professional institutes were asked to discuss their points of view on the feasibility of such programmes as well as on the strengths and weaknessess in this respect. Respondents and participants at the workshops can be classified into four main groups:

- managers at public schools and vocational or technical institutes,
- school teachers and tutors with a strong interest in WBL programmes,
- institutional representatives whose expertise is either in the field of education or in the field of youth employment policy,
- human resource managers serving structured enterprises with headquarters in either Northern Italy or in Slovenia.

The information collected by means of interviews helped me to obtain valuable insights on educational programmes and policies both in Slovenia and in Northern Italian regions. They also enabled me to make some observations which could be furtherly tested in future research. Additional feedbacks were obtained during a number of meetings and workshops attended by experts in education, tutors at school and tutors in enterprises. The meetings took place in fall 2018 as part of the “CB_WBL” Interreg project funded with an aim to enhance capacity building and cross-border governance. Common to most participants who attended the workshop was the strong interest in improving learning conditions, the quality of educational programmes and to help young people to better understand the job market in the interregional area with its changing requirements.

4. FINDINGS AND CONSIDERATIONS

Respondents that participated to the interviews and attended workshops tend to agree on the fact that the educational systems characteristic for Slovenia and for Italy are becoming increasingly similar. This is perhaps due to the communitarian educational framework that encourages cooperation between institutions in different countries and stimulates exchange programmes for student mobility. Well-designed mobility schemes are particularly interesting for the interregional area between Slovenia and North-Eastern Italy. In this sense, opportunities in this area of reference appear to be quite promising.

Nevertheless, in order to develop effective WBL programmes between the two above-mentioned countries, a number of organizational resources and professional figures need to be granted by the schools and other key actors in WBL. In particular, respondents noted the lack of figures such as professional tutors (particularly in smaller enterprises), who are essential to help students in performing their tasks and monitor their progress at work. Also, stronger networks between institutions, enterprises and schools would help in developing high standards for professional mobility schemes and WBL programmes in this part of Europe. Participants at transnational

WBL programmes could benefit both economically (e.g. with better career opportunities in the future and a better placement in the job market) and in terms of gaining cross-cultural awareness, thus empowering their active citizenship.

All in all, one needs to be nevertheless very cautious when discussing educational strategies such as WBL. While they may favour a better understanding of the job market requirements among young people, one needs to pay attention so not to jump to the wrong conclusions: WBL and vocational training schemes are not themselves a solution to youth unemployment. Instead, the concern which has been expressed for WBL programs in countries such as England may be equally valid for Slovenia and Italy, unless educational and employment strategies are managed properly: WBL may 'serve to promote an impoverished form of employability and reinforce the class-based divisions of labour' (Simmons, 2009). If this was the case, the unintended consequences may be rather dramatic – something we do not want to witness.

5. ACKNOWLEDGMENTS

The present research originated from author's participation at the 'CB_WBL Italian-Slovenian alliance for cross-border work-based learning' project, funded under the program Interreg V-A Italy-Slovenia 2014-2020. Author is thankful to each participant at the workshops of the program and to everyone who shared their views and ideas at the meetings in Udine, Nova Gorica and Sagrado in the second half of 2018. Author is thankful to Vedran Jakačič from Center RS za poklicno izobraževanje for fruitful cooperation and for sharing ideas during meetings in Trieste and in Ljubljana while working at the content analysis as part of the above-mentioned project. The usual disclaimer applies.

REFERENCES

[1] Bailey, T. et al. (2004) *Working Knowledge: Work-based learning and Education Reform*. London: Routledge.

[2] Boeri, T. et al. (2016) Increases in the retirement age and labour demand for youth, *voxeu.org*, 08 September.

[3] Dore, R. (2005) *Il lavoro nel mondo che cambia*. Bologna: Mulino.

[4] European Training Foundation (2014) *Work-Based Learning: A handbook for policy makers and social partners in ETF partner countries*. Torino: European Training Foundation

[5] Green, A. (2017) Young People and Employment: The Age of Uncertainty. In: *The Crisis for Young People*. Basingstoke: Palgrave Macmillan

[6] Little, B., and Brennan, J. (1996) *A Review of Work Based Learning in Higher Education*. Department for Education and Employment, University of Sheffield.

[7] Nordström Skans, O. (2011) Scarring Effects of the First Labor Market Experience, *IZA Discussion Paper 5565*.

[8] Ryan, P. (2001) The School-to-Work Transition: A Cross-National Perspective, *Journal of Economic Literature*, 39(1), pp. 34-92.

[9] Schmillen, A. and Moeller, J. (2012) Distribution and Determinants of Lifetime Unemployment, *Labour Economics*, 19(1), pp. 33-47.

[10] Schmillen, A. and Umkehrer, M. (2017) The Scars of Youth: Effects of Early-career Unemployment on Future Unemployment Experience, *International Labour Review*, 156(3-4), pp. 465-494.

[11] Simmons, R. (2009) Entry to employment: discourses of inclusion and employability in work-based learning for young people, *Journal of Education and Work*, 22(2), pp. 137-151.
[12] Ufficio Scolastico Regionale per il Veneto (2018) *a.s. 2018-19. Ripartire con l'Alternanza Scuola Lavoro*. Venezia: Ufficio Scolastico Regionale per il Veneto.
[13] Vogrinc, R. (2006) Kako sodelovati – projektni management. In: Trnavčevič, A. et al.: *Sodelovanje z okoljem*. Ljubljana: Šola za ravnatelje.
[14] Wolter, S.C. (2012) Apprenticeship Training Can Be Profitable for Firms and Apprentices Alike, *EENEE Policy Brief 3/2012*.

STRATEGIC CHANGE PROCESS IN PRACTICE: FOUR CASE STUDIES IN KOSOVO

Diana Lekaj[1]
Bardha Qirezi[2]

DOI: https://doi.org/10.31410/EMAN.2019.103

Abstract: *This paper explores the process of organizational strategic change in four financial institutions in Kosovo. The study uses a 'strategy as practice' approach focusing on strategic change implementation processes and practices. It uses grounded theory approach (Charmaz, 2006) to examine the process of strategic change and to provide insights of change management from the practice perspective in Kosovo context. The study proposes 5 stages of change: experiencing crisis, diagnosing the organization, shaping change strategy, communicating change strategy, and implementing and stabilizing change. These phases are grounded in data and offer discussion on strategic change processes and insights on implementation process from management perspective.*

Keywords: *strategy as practice, financial institutions Kosovo, strategic change, processes and practices, organizational context.*

1. INTRODUCTION

In the past two decades, studies of strategy have shifted focus in the direction of the practice and micro perspective approach. Unlike the traditional business strategy approach, where strategy is considered as something organizations possess, the evolving field of strategy as practice (s-as-p) views strategy as something organizations and its members actually do. The strategy process entails individuals conducting various activities such as making plans, framing, implementing and executing strategies (Whittington, 2004; Johnson et.al, 2014; Jarzabkowski, Balogun & Seidl, 2007). In this context, strategy is not only considered a written document or plan for organizations' future path but also as something that an organization and its members take part in throughout various processes, practices and activities. According to Whittington (1996) strategy-as-practice is concentrated on "how the practitioners of strategy act and interact" (p.731). Pettigrew et al. (1999), on the other hand, argues that organizational performance difference may be understood only when practitioners are able "to manage the process of organizational change and to customize it to fit local conditions" (p.6). Thus, strategic change is of crucial importance for the strategy process and also inherent to the strategy as practice approach.

In this study, we identify five phases of the strategic change process applicable in four financial companies which went through transformation. These are: experiencing crisis, diagnosing the organization, shaping change strategy, communicating change strategy, and implementing and stabilizing change. Although, many theories/models of strategic change exist, in practice, models must be tailored depending on the organizational context, the nature of problems that need to change, the scope and urgency of change and readiness and commitment to change.

1 Riinvest College, Lidhja e Prizrenit 56, 10000, Pristina
2 Riinvest College, Lidhja e Prizrenit 56, 10000, Pristina

2. METHODOLOGY

To examine the change processes in local context in these four Kosovar companies, we use a qualitative case study approach (Yin, 2003). Research on SAP mainly uses qualitative methods where case study research is prevalent (Hughes & McDonagh, 2017). Qualitative research allows contextualization of micro action and understanding of how the change was enacted and is usually appropriate to answer how and why questions about processes. According to Burgelman, et al. (2018) the recent developments towards a "strong process ontology" allow for opportunities to combine units and levels of analysis practiced by the SAP research community to a more holistic approach labeled as "Strategy as Process and Practice (SAPP). The study intended to approach the strategic change process without any specific model in mind, through asking an open research question: What are the main processes of change as experienced by managers in four financial institutions?

Selected companies for this study are a mixture of local and international companies offering financial services and products ranging from 10 to 17 years of operation in Kosovo.

Table 1: Company Profiles

Company Code	*Ownership*	*Number of Employees*	*Years of Operation*	*Profit Ranking*	*Type of change*
001	Local and International	484	10	Among top 5	Culture,Processes, Structure, Systems
002	International	800	15	Among top 5	Culture
003	Local	330	16	Among top 5	Culture,Processes, Structure
004	Local and International	280	17	Among top 10	Structure

Data were collected through unstructured interviews with 2 participants in four financial institutions in Kosovo undergoing changes in the last 10 years. In total 8 interviews were conducted with one senior manager and one middle manager in each institution.

Table 2: Participant Profiles

Participant Code	*Company Code*	*Gender*	*Age*	*Years of Experience*	**Position**
1	001	M	50-60	37	CEO
2	001	M	50-60	30	HR MNG
3	002	M	40-50	18	COO
4	002	M	30-40	15	HR MNG
5	003	F	40-50	18	CEO
6	003	M	30-40	15	HR MNG
7	004	F	30-40	18	HR MNG & Boar Member
8	004	M	40-50	20	REG MNG

The study used a grounded theory approach to develop theory inductively from participant data. In line with the SAP approach we consider participants' experience as lived experiences of individuals interacting in the "human world" consisting of individual, institutional and in-

teractional level (Jenkins, 2008, p. 39). As such participants experience is interpreted as actors' lived experiences over time in the institutions. Participants as "individuals and collectives have a past, present and future" which interact in continuum in a particular context (Clandinin and Connelly, 2000, p. 32). Wenger uses the term "community of practices" (Wenger, 1999, p.86) to refer to practices formed in interaction of the individual and society over time. He maintains:

"Practices evolve as shared histories of learning. History in this sense is neither merely a personal or collective experience nor just a set of enduring artefacts and institutions, but a combination of participation and reification intertwined over time" (Wenger, 1999, p. 87).

If we consider the interaction of specific community (individual companies) with other professional communities of practice in a local and global level (financial community), we can suggest that practices are shaped through many influences at micro and macro level especially in financial sector where processes are highly regulated and standardized.

The research used purposeful sampling technique to include actors that have experienced the process of change in the institution. Selection criteria included more than two years of working experience during the strategic change implementation.

Given that the institutions are well known in Kosovo, the researchers had context information about the companies, and therefore participants agreed for interview provided that the company is not identified. The interviews were recorded and transcribed verbatim whereas, the company profile and respondent profile are coded selectively. Although researchers had access to other company data, attributes were carefully assigned and used to avoid identification. The interview was conducted in unstructured way by using the guiding open-ended question:

NVIVO Professional software (version. 11) was used to facilitate data analysis. Interview data were imported into NVIVO as resources and were automatically coded into Participant CASES with assigned attributes. Data was analysed into five phases: 1) Open Coding; 2) Categorizing; 3) Axial Coding; 4) Validation and 5) Interpretation.

Open Coding included free coding where the code/or node, a term used in NVIVO, represents a „word or short phrases that symbolically assigns a summative, salient, essence capturing, and/or evocative attribute for a portion of language" (Saldaña, 2009, p. 3). Nodes could be emotions, feelings, hierarchical aspects, processes and events such as cultural confusion, merger or crisis. Initial nodes were coded by two researchers separately and then compared. We coded 411 free codes at this stage.

The categorizing phase involved the process of grouping codes into meaningful parent and child nodes. The category represents processes/phases during the change experience through constant comparison of data and interpretation by the researchers. Other company data were included in the analysis at this stage.

The third phase, axial coding, involves an analytical process of the concept using questions (what, where, when, why, how, and consequences). Thus, the analysis of data is grounded in context and meanings emerge from participant interpretation of the process of changes in terms of the 'interrelationships among conditions (structure), action (process) and consequences' (Strauss & Corbin, 1998, pp. 9-10).

Table 3: Axial Coding Experiencing Crisis

Experiencing Crisis						
Category	**What is [the category]?**	**When does [the category] occur?**	**Where does [the category] occur?**	**Why does [the category] occur?**	**How does [the category] occur?**	**With what Consequence does [the category] occur or is [the category] understood?**
Related to Organisational Culture	Nepotistic Culture	During the company set up During decision making During recrutiment During loan approval	C001,C003,C004	board lacking necessary skills misunderstanding of board and CEO roles and responsibilities trying to employ family members (high unemployment rates in Kosovo)	By refusing to change the way of doing things by hiring based on favouritisim by granting loans based on favouritisim , by discriminatng workers during employment, promotion and staff development opportunities	Need to understand the need for change
	Cultural Misfit/Confusion	Cultural misfit Cultural differences Frequent change of CEOs Seeking for cultural compatibility between two entitities during merger	C001,C002	Culture incompatibility Frequent change of CEOs	CEO cultural influence	Need to separate from past
					The international company culture trying to dominate over the local culture	Need to buy in
Related to management malpractices	Poor governance practices	Long term problems with portofolio management, Unfit management expertise, Change of traditional company concept	C001,C004	Board of directors lacking industry know-how, Stockholder decision-making interference board change/management change Lack of internal control,	By risiking financial stability, By maintaining internal crisis, Lack of the needed capital By loosing trust By experiencing uncertainity because	the company failed to merge with another one, failed to advance its status lack of capacity to join a new group, **Urgent Need to change**
		Unclear Strategy Power issues	C002	Staff unaware of company vision and mission	By creating staff divisions By refusing to cooperate	
		Middle managers faced with change challenges	C001,C003	Because the change was not properly understood	By feeling they were overused and overpassed	
	Corruption	CEO money laundering issues	C004	For personal gain	By reporting false numbers, by giving tenders to its own companies, by using cliques trying to win staff	
		Lack of Board cooperation	C001,C004,C003	Denial of reality, Fear of their fraud involvement, Lack of financial transparency, Role and function misconception	By refusing to understand that the company was bankrupting, by insisting that no change is needed, by taking company money for their own gain	**Urgent Need to change**
Regulatory Intervention	Administration	institution place under temporary administration	C004	Because managemend was let go	By temporiraly assigning an administrator	
		reporting corruption	C004	Because CEO was corrupted	Regulatory intervention	
		Growth strategy frozen due to legal framework restrictions	C004			
	Information	facing regulatory restrictions Halted expansion, merger and acquisition, acitivites not in line with the regulatory framework	C004,C001, C003	Halted expansion, merger and acquisition, acitivites not in line with the regulatory framework	By sending alerts that the company is not doing well	
		Loan issuance procedures not in line with the regulatorytrying to regain	C003	Loan issuance procedures not in line with the regulatory	By making loan and other payment services too byrochratic	

This analysis was followed by validation which involves checking coding according to cases (company, participant) and their attribute (company size, ownership, profit). Matrix tables for each category were retrieved from NVIVO to check appropriateness of categories and subcategories.

Table 4: Matrix Coding Experiencing Crisis

	A : Company	B : 001	C : 002	D : 003	E : 004
1 : CULTURE	31	7	9	5	5
2 : MANAGEMENT	199	40	45	32	53
3 : REGULATORY AND EXTEI	56	11	9	9	18

Table 5: Change Models Comparison

Lekaj and Qirezi (2019)	**Kotter (1995)**	**Mento et al (2002)**	**Jick 1990**
Experiencing crisis **Diagnosing the organisation**	Establishing sense of urgency	The idea and its context Define the change initiative Evaluate the climate for change	Analyze organization and its need for change
Shaping change strategy	Build a guiding coalition	Develop a change plan	Create a share vision and common direction
	Creating a vision		Separate from the past
Communicating change strategy **Implementing and stabilizing change**	Communicate the vision Empowering others to act on the vision. Planning for and creating short-term wins	Find and cultivate a sponsor Prepare your target audience, the recipients of change Create the cultural fit, making the change last	Create a sense of urgency Communicate, Support a strong leader role Line up Political sponsorship
	Consolidating improvements- Producing change Institutionalizing new approaches	Develop and choose a change leader team Create small wins for motivation Constantly and strategically communicate the change	Craft an implementation plan Develop enabling structures Communicate, involve people and be honest
		Measure progress of the change effort Integrate lessons learned	Reinforce and institutionalize change

Interpretation involves synthesizing and comparing findings with other change management theories. Table 5 shows comparison analysis.

3. RESULTS AND DISCUSSIONS

Results are organized in five categories which represent common processes /phases these companies undergo in the process of strategic change implementation. While companies differ in some aspects in each of the phase, our study although offers similar model as that of Kotter, (1995), Jicks (1991), and Mento, Jones, & Dirndorfer, (2002), it offers insights into simplified phases which may be adaptable depending on company change needs and change architecture that the companies develop to enrich the prospect of change implementation.

The five proposed phases are presented below by depicting similarities and differences for each company.

Phase 1: Experiencing Crisis,
Phase 2. Diagnosing the organization,
Phase 3. Shaping Change Strategy,
Phase 4: Communicating Change Strategy,
Phase 5: Implementing and Stabilizing Change.

Phase 1. Experiencing Crisis

An organizational crisis can be referred to any situation in which an organization's wellbeing is harmed or damaged. According to Seeger, Sellnow and Ulmer (1998), an organizational crisis is "specific, unexpected, and non-routine events or series of events that create high levels of uncertainty and threat or perceived threat to an organization's high priority goals" (p.233). Our findings identified three types of crisis that threatened the future of these company goals: organizational culture crisis, management malpractices and regulatory intervention.

Table 6: Phase1. Experiencing crisis

Phase1. Experiencing Crisis	**001**	**002**	**003**	**004**
Organizational Culture	Nepotistic Culture Organizational Culture Misfit/Confusion during the merger	Culture misfit/Confusion	Organizational Culture misfit/Confusion	Nepotistic Culture
Managerial Malpractices	Poor Corporate Governance Practices Corruption	Power Issues Development of Cliques	Poor Corporate Governance Practices	Poor Corporate Governance Practices Corruption Financial Instability Money laundering
Regulatory intervention	Informative Financial instability Governance practices	None	Informative Loan Procedures	Under Administration Loss of profit Decline of Loan Portfolio Corruption

Crisis is found in all four companies. Change initiatives at each institution were not initiated due to the innovation needs or intentions to boost quality but because all four of them experienced crisis which forced them to change or simply fail. Similar to Kotter's step one (establishing a sense of urgency), this phase involved evidencing concrete challenges and discussing potential crisis systematically.

In his model, Kotter (1995) claims that 75% of a company management should be convinced that change must occur. This demonstrated to be an important but also challenging activity in all four but more in two cases in this study. Even though Jick's (1990) model (step four) assumes that when an organization faces crisis such as bankruptcy, convincing its members on the need to change will not be difficult. Yet, it was one of the most difficult tasks for change initiators at Company 001 and 004.

As stated by Mento et al, (2002) in his model (step one, the idea and its context) leaders must first face and embrace the situational reality. They must know the truth of the present reality and become aware of consequences if changes do not happen. Usually, it is expected that management and especially top management are on board with change initiatives. Conversely, our study of Company 001 and 004 revealed that in fact, the most powerful resistance about the idea of change came from top management structures It was personnel who evidenced situational reality nevertheless, change was not initiated until the top management structures recognized and accepted the need for change- just as Kotter (1995) suggests.

Phase 2: Diagnosing the organization

Organizational diagnosis is a method to detect and understand organization problems at all levels (Brown, 2011). There is no one set method, standard or procedure for performing organizational diagnosis. Companies may utilize different diagnostic methods based on the crisis and the problems they have. For change to be effective, the diagnosing approach will depend based on the organizational context where the change occurs (Johnson et al, 2013). Companies under this study also used methods that matched their change needs and were pertinent to the situation perceived to be problematic.

Organizations used external and internal experts and various methods such as: performance evaluation (staff and institutional), role analysis, staff satisfaction survey, skill testing, and standards compatibility testing.

Table 7: Phase 2 Diagnosing the organization

Phase 2: Diagnosing the Organization	**001**	**002**	**003**	**004**
Performance evaluation (staff and institutional),	Skill testing (internal) Financial Challenges (external) department Performance Analysis Outsourcing analysis	Role analysis, change results scenarios (external) change consultants	Skill testing department Performance Analysis	
	Standards compatibility testing	EU Standards	Staff assessment method	Regulatory Standards
Satisfaction		Staff Satisfaction Survey (external) Back to back method (internal) Employee voice		Client Satisfaction Survey (external)

Various methods for collecting information and analyzing data were used to determine gaps among the company structure and systems against desired performance and design change strategy. At least two companies involved external evaluators. The evaluator's role was to collect data and analyze information along with company management to properly identify root causes of problems at all levels. Once this was done, then external evaluators provided improvement recommendations built on their findings and tailored to the organizational change needs context. Using external evaluators also served as a stamp of approval to finally convince top managers to approve strategic change initiatives in companies (001 and 002). This step is similar to Mento et al (2002), step three (evaluate the climate for change) and Jick's step one (analyze organization and its need for change) but involves more elaboration on the process of diagnosis and methods utilized as per company change needs and organizational structure. For instance, when comparing with other companies, company 002 utilized more diverse tools/methods to identify and analyze problematic areas and also to research potential reaction to change. This is because changing culture is a very challenging effort and "tremendous energy is required to effect real cultural change" (Pettigrew, Ferlie & McKee, 1992, p.29). Proper diagnostic tools are important to design a nonthreatening and engaging implementation process.

Different diagnostic methods may be used for diagnosing organizational issues during the change process. Many models assume that all processes and practices within an organization are interconnected and a change in one will affect all of them (Lewin, 1951; Hickman, 2010). Lewin recommends the force field analysis as useful "in providing a view of forces at work in an organization that act to prevent or facilitate change", (Johnson et al, 2014, p.475). Yet, our study revealed that for change to be effective, the most appropriate diagnostic model depends on the organizational context and change urgency. Thus, there is no one set and unique diagnostic model that can be used for all organizations rather, methods must be adapted depending on the scope of the issue and urgency of change.

Phase 3: Shaping Change Strategy

Shaping change strategy refers to the process of mapping the terrain for change to take place. This was conducted by initiating activities that helped organizational members separate from the past: dealing with staff trauma, managing resistance and restructuring.

Table 8: Phase 3. Shaping Change Strategy

Phase 3: Shaping Strategic Change	**001**	**002**	**003**	**004**
Separating from the past	Merge cultures Change work processes	Change ambassadors Past process and structure isolation		Past process and structure isolation (leadership restructure)
Managing Resistance and dealing with trauma	Reeducating shareholders Educate staff (one-to-one talks, trainings, workshops) Staff participation the implementation process	Educate staff (one-to-one talks, trainings, workshops) Staff participation the implementation process	Reeducating shareholders Educate staff (one-to-one talks, trainings, workshops)	Creating part-time positions
Restructure	Outsourcing	Work delegation	Division restructure	Work delegation

Shaping Change Strategy included various tactics ensuring that all organizational members understood desired outcomes with more concrete activities. Here change leaders start mapping and preparing the terrain for change to take place by ensuring that past experiences are isolated. They start instituting a strategic architecture that aligns with new strategic vision by managing resistance and building new structures. Although this step is similar to Kotter's (1995) three steps (building coalitions, creating vision and empowering others to act on the vision), separating from the past and restructuring was key to shaping change strategy. Separating from the past was key message to change nepotistic culture and malpractices, whereas restructuring was necessary to institutionalize strategic change. In this study, change leaders have put significant effort to gain top management support and build buy in from other levels of organization about the new strategic direction. At this stage, companies 001 and 002 involved all members of organization in the change process making them a part of it. This proved to be important as it gave employees voice to the new processes. Consequently, company 002 assigned change ambassadors who were responsible to win support from all members of the organization and to identify potential obstacles. While at Company 003, changes started happening only after the board of directors showed support towards the new strategic vision. At company 004, the entire management was changed an action very well received by employees. Restructuring working positions and creating part-time jobs served as an excellent tool to empower employees to support and accept company's new direction.

Phase 4: Communicating change strategy

As Kotter (2008) argues, one of the main reasons why change initiatives fail is because change vision and strategy is under communicated. Effective communication is crucial to successfully initiate or sustain a change effort. Change leader should use “all existing communication channels to broadcast the new vision”, Kotter, 2008, p. 6). Some of the communication modalities used to communicate change in companies in this study are: Meetings, change ambassadors, email communication, external consultants, brochures, newsletters and individual meetings.

Table 9: Phase 4. Communicating change strategy

Phase 4: Communicating change strategy	**001**	**002**	**003**	**004**
Communication modalities	Meetings with owners and board Staff information-group and one-to-one meeting	Value promotion campaign by providing brochures, e-mails, newsletters.	Weekly executive meetings and monthly middle management meetings E-mails and individual staff meetings	E-mail communication and staff meetings
	External report and recommendations	External Consultant Group		
	Change ambassadors	promoting and advocating the planned change (internal staff)		

Communicating change stage corresponds with Kotter’s (1995) step four (communicate the vision) to use all means of communication for continuously broadcasting the change vision and remove obstacles. This phase is also comparable to Jick’s (1990) step nine (communicate, involve and be honest) to openly communicate and look for all staff participation and trust within the organization. Jick (1990) notes that effective communication is crucial from the start of the change process. Communication modalities varied in each case, depending on local context. All four companies have put extra effort to convince non joiners that planed change means a better and more exciting future for the company and for them. Proper communication tools helped both companies avoid change uncertainties, win trust throughout organization and gradually gain acceptance. In all four cases, proper communication proved to be an important activity that later assisted change implementation.

Phase 5: Implementing and Stabilizing change

Stabilizing crisis according to Johnson et.al, (2014) is putting in control and recuperating from the declining position of the organization. Implementation refers to “processes needed for designing and organizing the process of change to be effective” (Carnall, 2003, p.5). Companies under this study assumed various activities during the change implementation process which lasted approximately two years at each institution.

This phase is comparable to two of the Kotter’s change model steps: Step five (empowering others to act on vision) through removing obstacles to change and changing the structures and systems that challenge organizations’ new vision. Step six (planning for and creating short-term wins) goes through planning but also creating visible improvements through increased internal control. It is also similar to Jick’s (1990) step ten (reinforce and institutionalize change) by demonstrating commitment to the change process and incorporating new behaviors into daily routines of operation.

The process of implementation lasted approximately two years at each organization. Implementation started by removing obstacles which was key to increase internal control. Company 001 removed recruitment and hiring process from stockholders and initiated adaption to the new work processes and systems compatible with standards at the acquiring company. Eliminating obstacles at company 002 was applied by terminating strong opponents of change and aligning organization values with strategic vision. Company 003 on the other hand, centralized work processes, simplified loan procedures to increase clientele and improve market position. Part time positions, bonus schemes and staff tuition assistance programs were introduced for employee empowerment. Moreover, Key Performance Indicators were used to monitor and measure the effects of change strategies for achieving desired objectives. The results showed that there were satisfying improvements in all four cases which proves that internal control and key performance indicators were key to implement and stabilize change.

Table 10: Phase 5. Implementing and Stabilizing Change

Process	001	002	003	004
Phase 5: Implementing and stabilizing change				
Eliminating obstacles	*eliminating bad practices* *Changing the hiring process* *Reeducation shareholders* *Advanced training*	*Terminating conflicting employees*	*Centralizing procedures* *Simplifying work process*	*Management Replacement*
Bonus Schemes		*Staff tuition assistance*	*Excellent performance and professional development*	
Internal Control and Key Performance Indicators		*Monitored from the HQ office*		*Increased internal control*
	Social life improvement *Increased results* *Increasing profits*	*Social life improvement* *Increased results*	*Social life improvement* *Increased results* *Client number and service increase*	*Social life improvement* *Increased results* *Improved reputation (internal)*

4. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH AGENDA

Most of change management literature suggests that in practice, organizational change is a very complicated process (Burke, 2011). This complexity poses great difficulties to recognize, understand, communicate and manage change for managers of any organization. According to Van de Ven & Pool (1995, p.510) "the processes or sequences of events that unfold in these changes, have been very difficult to explain let alone manage". Accordingly, change management processes have been considered as "elusive concepts," which are extremely hard to measure (Kanter, 1983,

p.279). Consequently, a number of scholars argue that majority of change initiatives fail (Jansson, 2013; Kotter & Schlessinger, 2008; Mento et al, 2002). To avoid making mistakes that lead to failure, few management models to guide practitioners through the execution of the planned change have been presented (Kotter, 1995, Mento, Jones, & Dirndorfer, 2002, Jick, 1991).

All these models aim to provide detailed guidance for managers who are leading change. One such model is Kotter's (1995) model also considered as a vision guiding the change process (Mento et al, 2002) through a series of change phases. The model calls for specific attention to some of the key phases since a mistake during any of these phases may negatively impact the drive of the change process. Mento, Jones, & Dirndorfer, 2002 base their model on the reality of change process and suggest that the recommended steps "are not to be used only sequentially, but also as an integrated, iterative process to enable change" (p.58). Change management process is complex and presents great difficulties to identify, understand, communicate and manage change for those leading change efforts.

An examination of the four local companies in Kosovo revealed that leading and managing change is a challenge for organizations and there is no one size fits all model that may be used for all companies. In practice, models must be tailored depending on the organizational context, the nature of problems that need to change, the scope and urgency of change and readiness and commitment to change.

This paper contributes to strategy as practice discussion and practice perspective understanding of the enactment strategic change processes. Although similar to existing change management models, our model proposes simplified phases of change process for use to adapt depending on the context. For change practitioners, we recommend that there is no one change management model that fits all organizations. Models should be adapted based on the context of change and other organizational contents such as type of organization, industry, type of crisis, organizational culture and other factors aligning with the need of change. Moreover, this paper illustrates how management unethical behavior can lead organizations to great risks by intentional actions in one case or lack of awareness and industry knowledge in another one. Finally, it also points out that the role of regulatory authorities and its intervention was significant to save these organizations and assist with change initiation.

5. LIMITATIONS

Risk of identification led to some decisions regarding use of company data such as ranking, profit, and other company information. Although we had access to the relevant data, the agreement was to only use data that would not reveal company and participant identity. Nevertheless, the fact that participants provide information about sensitive issues such as corruption and nepotism practices, add to the reliability of the study.

The use of four cases in one similar industry limits the ability to generalize our findings. Nevertheless, generalizing was not an intention; rather, our intention was to create transferability of results. The range of change processes presented here are certain to the specific context of the investigated cases. Thus, we can only assume these change processes may apply to other change processes in other organizations depending on the context.

Another limitation may be our decision to not interview employees and clients or board members to take their perspective on change processes. For the purpose of this study, we decided to take the perspectives of CEO who were leading and implementing change in practice. Criteria included years of change implementation, approximately more than two years in strategic change implementation.

Future research could include more comparative cases across the industries to examine if similar change initiatives apply to change processes based on organizational context. Furthermore, an evaluation of how different contents such as type of organization, industry, organization position and performance and leadership approach impact the change process may be interesting for further research. Finally, as an extension to this study, inclusion of employees, board of director and client perspective on change processes may be an interesting avenue for future study and add to the validity of this study.

REFERENCES

[1] Brown, D. (2011). *An experiential approach to organizational development.* Prentice Hall: Pearson Education.
[2] Burgelman, R. A., Floyd, S. W., Laamanen, T., Mantere, S., Vaara, E., & Whittington, R. (2018). Strategy processes and practices: Dialogues and intersections. *Strategic Management* (39), 531-5. doi:DOI: 10.1002/smj.2741
[3] Burke, W. (2011). A perspective on the field of organization development and change. *The Journal of Applied Behavioral Science, 47*(2), 143-167.
[4] Charmaz, K. (2006). *Constructing Grounded theory: A practical guide through qualitative analysis.* Sage.
[5] Clandinin, J., & Connelly, M. (Narrative Inquiry: Experience and story in qualitative research). San Francisco: Simon & Schuster.
[6] Colarelli, S. (2013). Book Reviews. *Personnel Psychology*, 785-789.
[7] Connelly, J., & Clandin, M. (2000). *Narrative Inquiry; Experience and story in qualitative research.* NY: Simon & Schuster.
[8] European Bank for Reconstruction and Development. (2017). *Corporate Governance in Transition Economies: Kosovo Report.* Prishtina: Corporate Governance in Transition Economies: Kosovo Report.
[8] Hickman, G. (2010). *Leading Change in Multiple Contexts.* Thousan Oaks: SAGE.
[9] Hughes, J., & McDonagh, J. (2017). In defence of the case study methodology for research into strategy practice. *Irish Journal of Management, 36*(2), 129-145. doi:10.1515/ijm-2017-0013
[10] Jansson, N. (2013). Organizational Change as Practice: A Critical Analysis. *Journal of Change Management, 26*(6), 1003-1019.
[11] Jarzabkowski, P., Balogun, J., & Seidl, d. (2007). Strategizing: The challenges of a practice perspective. *60*(1), 5-27.
[12] Jenkins, R. (2008). *Social Identity.* Oxon: Routledge.
[13] Jick, T. (1991). Note: Implementing Change. *Harvard Business School Press, Boston*.
[14] Johnson, G., Whittington, R., & Scholes, S. (2014). *Exploring Corporate Strategy.* Harlow: Financial Times Prentice Hall.
[15] Kanter, R. (1983). *The change masters: innovation and entrepreneurship in the American Corporation.*
[16] Kotter, J. (1996). Leading Change. *Harvard Business School Pres, Boston, MA*.

[17] Kotter, J. (2007). Leading Change: Why transformation efforts fail. *Harvard Business Review*, 1-20.

[18] Kotter, J., & Schlesinger, L. (2008). Choosing Strategies for Change. *Harvard Business Review.*

[19] Mento, A., Jones, R., & Dirndorefer, W. (2002). A change management process: Grounded in both theory and practice. *Journal of Change Management, 3*(1), 45-59. doi:10.1080/714042520

[20] Pettigrew, A., Brignall, T., Harvey, J., & Webb, D. (1999). The determinants of organizational performance. University of Warwick.

[21] Pettigrew, A., Ferlie, E., & Mckee, L. (1992). Shaping Strategic Change-The case of he NHS in the 1980s. *Public Money & Management, 12*(3), 27-31.

[22] Quinn, J. (1980). Managing Strategic Change. *Sloan Management Review, 21*(4), 320.

[23] Seeger, M., Sellnow, T., & Ulmer, R. (1998). Communication, Organization and Crisis. *Communication Yearbook, 21*, 2371-275.

[24] Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Procedures and techniques for developing grounded theory.* CA: SAGE.

[25] Ulrik, K. (2012). The anthropology of nepotism; Social distance and reciprocity in organizations in developing countries. *International Journal of Cross Cultural Management, 12*(2), 247-265.

[26] Van De Ven, A., & Poole, S. (1995). Explaining Development and Change in Organizations. *Academy of Management Review, 20*(3), 510-540.

[27] Wenger, E. (1999). Communities of practice: Learning, meaning, and identity. *Cambridge University Press*.

[28] Whittington, R. (1996). Strategy as Practice. *Long Range Planning, 29*(5), 731-735.

[29] Whittington, R. (2004). Strategy after modernism: Recovering practice. *European Management Review*, 1-4. doi: 10.1057/palgrave.emr.1500006

[30] Yin, R. K. (2003). *Case Study Research: Design and Methods* (Third Edition ed.). London: Sage Publication.

TECHNOLOGY IN AN ERA OF GLOBALIZATION

Irena Andreeska[1]

DOI: https://doi.org/10.31410/EMAN.2019.117

Abstract: *The professional public sees the globalization from different angles, moving within the boundaries of unconditional apologetics versus a sharp criticism of the process. Nevertheless, all definitions of globalization can be broken into the following constituent components: growing integration, world market and mobility. Despite the scientific and technological progress achieved so far, it is increasingly surprising that one billion people in the world live on the „edge of subsistence", or millions of people on the earth are undernourished. This is particularly worrying, when it is more than clear that the number of poor people in the world has steadily increased. Members of the intellectual elite think that the new technological era that occurred in the 19th century led to key changes in the quality of life. But, whether and how much this data is supported, is actually the dilemma discussed in this paper. At the same time, the paper contains views on the impact of the growing technological development of the globalization process in underdeveloped countries, as well as the effects it produces.*

Keywords: *technology, science, globalization, poverty, integration.*

1. INTRODUCTION

The new technological era (technologic revolution) in the 19th century led to key changes in the quality of life. The production grew rapidly back then, and international trade developed even faster in conditions of a stable monetary system, which was guaranteed by the later rejected gold standard. Today the computer networks are able to strengthen the community and the individual, while the truth is completely different.

Does the development of technology really contribute to a better quality of life, or it endanger the workplace of people? If, for example, in the past, most of the working operations in the banks, administration or other segments of society were done manually, and the process included two thousand employees, today, with modern networked computer systems the same work is finished by two hundred people. This fact becomes even more worrying when it is known that technology replaces the man at his job not only in the administration, banks and other institutions, but also in factories, shops and even the fields.

2. EPOCHAL CHANGES IN TECHNOLOGY

Existing forces continue to speak of any new generation of technological discoveries, with the same utopian terminology that describes each previous generation, starting from motor vehicles, flying, electricity, steam drive and pure nuclear energy, which are represented as changes from which the breath stops. In addition to offering fantastic and new weapons of financial speculation, global computing-satellite connectivity increases the ability of global corporations, their global enterprise of several thousand computer workers, to be internally uninterruptedly linked, making immediate changes with one unique touch on the keyboard. Computer technology is most likely a technology that, like a conductor bat, runs from the center, at least in terms of economic and political power. Technology makes globalization possible in a way that allows an unprecedented degree of control to date.

[1] Komercijalna banka AD Skopje, North Macedonia

The scientific and technological revolution terminologically does not reflect the far-reaching, the breadth and complexity of the changes in progress and in the perspective, because it speaks of mutational changes only in science and technology, and in fact it is a world historical scrap, in whose vortex is our whole planet, for the emergence of the „global village”, for creating means of communication that make all points of the globe accessible for a moment. In this scientific and technological revolution there are epochal changes in dialectical unity that are ongoing with all spheres of life and work of people and that are dictated by changes in science and technology. Everything is in motion, everything is twisted; the present collapses in the past, and the future becomes present.

3. NEW FORMS OF TECHNOLOGY AND THE BRAIN DRAIN

Meanwhile, new types of technology, such as biotechnology and genetic engineering, set a development framework for a completely new field by allowing computerization of our genetic potential, the very core of life. The discoveries and the creation of new forms of life, from a cell, through an insect and animal, to a human, left deep moral and ethical implications in the field of agro-culture in the third world, ecology and human rights.

Globalization has transformed conglomerates and multinationals into centers of global power, decisive political factors and creators of global consciousness. According to the terminology of globalization, industrial activity is described as an effective substitute for machinery workers, and competition is greater if workers’ wages are reduced in order to keep pace with foreign competitors.

The transfer of technology is not limited to the production of goods but was also applicable in the field of services (banking, trade and catering).

Such a division and in general such a determination of technology can be noted that it is too tight. The technology is not produced only in factories and enterprises, but also in institutes and universities, in public and private laboratories, etc., and in many cases individually (silent, un-coded knowledge). Hence it is transmitted through the education of such institutions and by the acquisition of those individuals. Subtle, technology, also occurs in the form of books, articles, abstracts and reports. It is less noticeable when it comes to scientific and professional gatherings, symposiums, etc. with the „so-called brain drain”. „Hunting” of talents through special choices and so on. In the latter, the specific and well-known phenomenon comes to the fore: the underdeveloped to „supply” the developers with „gray matter” and do not receive almost anything for compensation, and it is so needed on the land from which it is drained.

4. INTERNET REVOLUTION

A major upheaval, which opened the new epoch in the history of globalization, is associated with the electronic-Internet revolution. It brought with itself a terribly fast pace of information exchange and opened up new opportunities for the development of education and the economy. The retrospective shows that time, agriculture and digging of minerals, later, the processing industry, and afterwards the services, were decisive for the international competitiveness and the speed of development. Today, in 21st century, the fourth sector - Internet economy and modern information technologies are essential. „Drinking tea and not moving from bed, by pressing the

computer mouse, you can switch all the investments from the stock exchange in Shanghai to Moscow in the morning, and in the afternoon in Sao Paulo, and in the meantime to review the Bloomberg service, not even sending us the boy after Financial Thames, on-line ... Besides, this almost does not cost you anything. Even less than a cup of tea „.

The Internet is changing the size of the world. One time his „size" has limited geographical and political barriers, but now there is no longer a way to close the access to the Amazon valley, the Tibet highlands, or the deserts of Namibia. Not a single place is any longer far away.

As for the many forms of economic activity, the question of distance, and hence the costs associated with its bridging - is completely liquidated. The cheap Internet enables the transmission of a vast amount of information, instantaneously, from any place to any other place, and at prices that are overlooked for large-scale transactions. Similarly, you can get and sell services and goods, starting with computer programs, ending with a variety of technologies.

The Internet is a crucial factor for economic development, at this stage of the development of civilization, since the present size of the „old world" gives it a relatively larger new economic space, in which it is possible to examine and determine, invest and be to make profits, to produce and to use services, to sell and to buy, to teach and to learn, to write and to read. It is an epochal change, which gives the symbol of exceptional significance to the current great turnaround in the process of permanent globalization.

The expansion of the signing of contracts realized in the virtual transaction space is an irreversible process, although, with regard to its size and pace, as well as the dynamics and its rhythm, there are more questions than answers. However, in order to make this process essential, from the point of view of functioning of the whole economy, the critical mass of saturation by users from the Internet must be exceeded. In the case of electronics, which left a great stamp during the second industrial revolution - and the Internet is a discovery that can be compared with it - obviously accelerating the pace of economic growth occurred even 40 years after its application in production.

5. CONCLUSION

Will the „story" of globalization and technology development be completed like any other „great story" or will it become endless? On the occasion of this question, some hypotheses can be posed. One of them might be the following: As an ideological and theoretical „mega-story" it will experience the fate of the other „stories" that at one time gathered the prevailing spirit of the times. But, as the living, developmental, best-described world-historical „story" - it is objectively endless.

What is most important when we wonder where the dominant processes of current technology prosperity is: are these processes in the long run acting in the direction of reducing or disappearing poverty and inequality in living conditions between people, as well as reducing the risk of the world, or in changed forms, does it lead to an extended reproduction of poverty and inequality?

It is certain that a world-wide strategy deepens the gap between the rich and the poor, and in many cases, it also spreads absolute poverty - to many countries and nations, and to the world as a whole; it brought them an economy of disaster and growing danger. Poverty is the most remarkable product of globalization.

From the previous one we can synthesize the following:
In spite of scientific and technological achievements, approximately one billion people in the world live on the „edge of existence". For many in developing countries, technology development has not brought about the promised benefits. Even countries that have benefited from globalization have very poor people, in many countries the difference between the rich and the poor has increased.

In underdeveloped countries and around the world, too many poor people are neglected, in commerce, in finance, in technology, exactly in those areas that can help them in the development and reduction of poverty.

Country-level policies are the key to reducing poverty, even at the time of globalization.
It is reasonably considered that the allocation of money and the financing of poor countries is a simple but unsuccessful method. Money is transferred through countless non-governmental and governmental organizations and with each diversion they melt into someone's pocket or are extremely inadequately invested. Problems thus remain because they are not resolved by people who are directly affected by these problems, but by people who are rather disturbed by these problems.

BIBLIOGRAPHY

[1] A. Coudouel and J.Hentschel, (2000): Poverty data and measurement, World bank, Draft for Comments
[2] A.Nikiforofska, Megjunarodno dvizenje na capital I transfer na tehnologija Vo Republika makedonija, doktorska disertacija, Ekonomski fakultet Prilep
[3] I. Andreeska, Globalnata finansiska arhitektura i fenomenot na siromashtija, doktorska distertacija, Ekonomski fakultet – Skopje, 2010.
[4] D. Mander, E. Goldsmit, "Globalizatoin, arguments against", Clio, 2003.
[5] Dzozef E. Stiglitc, "Globalization and it's discontents", W.W. Norton & company, New York, 2002.
[6] G. Kolodko, Globalization and development prospectives of postsocialistic countries, Economic institute, MAGOR, Skopje, 2004.
[7] I. Goldin, K. Reinert, Globalization for development, a publication of the World bank and Palgrave Macmilian, April, 2007.
[8] Z. Vidojevic, Kuda vodi globalizacija, IP "Filip Visnjic", Institut drustvenih nauka, Beograd, 2005.
[9] www.socialwatch.org/BCI
[10] www.uis.unesco.org/

THE PROFITABILITY OF WATER COMPANIES DURING TEN YEARS

Felicetta Iovino[1]

DOI: https://doi.org/10.31410/EMAN.2019.121

Abstract: *Water companies play a strategic role in the economy of each country and determine the sustainability of the related resources involved. It is therefore interesting to analyze the profitability of water companies, operating in particular during the sales phase, during a ten years period. The aim of this paper is to analyze the profitability of the aforementioned companies, to check how they have affected by the effects of the reforms of public services. To this end, data from the AIDA database relating to Italian companies in the sector were used. The profitability of these companies has been analyzed using the main profitability, ROA and ROE ratios. An analysis of the trends of these indices was carried out for the period 2008-2017 and an ANOVA one-way. In this way, it has been verified whether the reforms of public services have affected the profitability of water companies in Italy.*

Keywords: *Public services, Water, Profitability, Performance, Ratio.*

1. INTRODUCTION

This paper highlights the water business sector in Italy. In particular, the objective is to analyze the income dynamics of Italian water companies and considering the three different and different geographical areas of Italy. This income structure was highlighted for 10 years, from 2008 to 2017, during the reform processes of the water companies, as part of the overall transformation of public service companies.

The reform of public services in fact started in the 1990s at European level with different types of legislative interventions. These interventions have particularly characterized the sectors of industrial importance. With regard to these, the primary objective was to ensure the technical quality of the service and at the same time allow potentially access to all citizens, i.e. the so-called universal service. The interventions at European level are followed by the consequent measures at national level in order to guarantee one of the most important public services, the water one.

The first important intervention in the sector in Italy was the so-called Galli law, Law 36/94. The purpose of this law was both to ensure an adequate technical quality for the sector and to promote adequate investments that would ensure a real public service to citizens. In fact, until then there was a serious lack of access to water throughout the country and in particular in the South. Very serious deficiencies due mainly to infrastructural reasons.

This is why this law intervenes by placing the investments at the centre with changes to the tariff system. The latter is entrusted until 2011 to an administrative body, the Committee for the supervision of water resources. Since 2011 the competence in water tariffs has been entrusted to ARERA.

[1] University of Sannio, Benevento, Italy

Several studies have focused on the managerial characteristics of these companies. Few, however, are those who have paid attention to the aspects of the income and financial performance of these companies.

This paper has tried to understand the trends of two main profitability indexes of water companies during 10 years. The main reason is to verify whether the transformations taking place in public services and the consequent reform of water services have enabled positive results to be obtained in the various geographical areas of the country.

To this end, three main research questions have been asked:
1) Which were the trends in the profitability ratios analyzed in the various Italian geographical areas?
2) Are there differences in trends in different Italian areas?
3) Are any differences statistically significant?

With regard to the three research questions we hypothesize that the reform processes had positive effects on the profitability of the companies (H1); that there are differences in the results of companies belonging to different geographical areas of Italy, by virtue of the structural differences present in the country (H2); the previous differences between the different geographical areas are statistically significant (H3).

For this aim, the profitability structure is evaluated using two different ratios: ROA e ROE; the period analysed is the ten years from 2008 to 2017; an analysis of the different trends and ANOVA have been implemented.

In the further sections, some literature notes on water companies are drawn. The other paragraphs are the specific methodology, the different results, conclusions and the main implications.

2. LITERATURE REVIEW NOTES

Different authors have been interested in the issue of water companies and the effects of the reform on their general trend.

[1] analyses the effects of the reform of water companies in China. The objective is to verify the performance of Chinese water companies with private equity investments over the period 1998-2006. 12 performance indicators are used. The results demonstrate improvements in output, in financial and income performance, in efficiency. The participation of the private sector therefore has positive effects on the performance of Chinese water companies.

[2] verify the changes in profit and in its elements of 10 English and Welsh water companies. The analysis is carried out for the period 1991-2008 in which three reforms were carried out. The results demonstrate a negative change in profit over the entire period. The effects of scale and the price of the input have a decisive negative weight.

[3] use a multifactor market model to understand the effects of changes in prices in agriculture and energy on the financial and income performance of water companies. To this end, a truck of listed companies is used. The results demonstrate a certain sensitivity of the stock prices of water companies to changes in agricultural and energy prices.

[4] try to understand the link between privatization of water companies and their performance. The paper uses a sample of Spanish water companies. The results show that private

companies achieve better results in work management, while public companies appear less efficient in dealing with operating costs.

[5] analyze a sample of Portuguese water companies in order to assess the impact of environmental and quality factors on the performance of these companies. The results of the paper show that environmental factors such as private participation, economies of purpose and water sources have a positive effect on performance. Furthermore, the quality of the service provided when it has improved also has positive effects on the performance of the companies themselves.

[6] verify the effects of regulation on the Tunisian water monopoly enterprise. The results show that performance-based regulation improves the efficiency and productivity of the Tunisian water industry.

As is evident, therefore, it has not sufficiently developed an analysis of the effects of the reforms in the water sector, using a perspective that mainly takes into account the financial performance of these companies.

For this reason, it was decided to investigate the performance of some financial indicators to verify if there were significant positive effects on the profitability situation of the companies, ([7] - [8] - [9] - [10] - [11]).

4. RESEARCH METHODOLOGY

Data collection and sample characteristics

To answer the research questions and verify the assumptions made, secondary data from the AIDA database have been used. It was decided to analyse the profitability of Italian water companies through two indices, ROA and ROE. A nine-year period from 2008 to 2017 has been identified to consider the effects of the implemented reforms.

The companies were classified according to the NACE code rev.2. In fact, these companies are those of „Collection, treatment and supply of water", with NACE code rev. 2 - 36. The total number of companies in the period considered is 305.

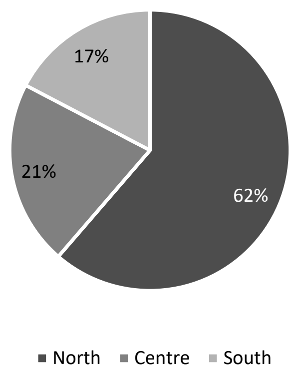


Fig. 1 – Source: our elaboration - geographic distribution of Italian water companies

This is the maximum number of companies available. Then it was decided to consider only the companies available for the indexes analysed for the 10 years. The sample is therefore made up of 150 companies.

Successively, different groups have been identified using as discriminating factor the geographical zone. About the first one three clusters have been found: northern, central and southern regions using the traditional division of Italian regions. The geographical division of the sample was the following: 62% in the Northern area, 21% in the Central area and 17% in the Southern ones (figure 1).

Used Method

First of all, a data trend analysis was done. It was carried out for the 2008-2017 period for each index and area. Subsequently the ANOVA was used to verify any differences or similarities in the values between the different geographical areas.

The null hypothesis states that all elements are equal to each other, while the alternative hypothesis specifies that there is at least one different value. In this paper, the independent variables used are the geographical areas, while the dependent variables are the indices. ANOVA one-way was also chosen, because it allows to verify if there are statistically significant differences, when two variables have been analyzed separately ([14]).

5. FINDINGS AND DISCUSSION

Analysis of trends and of variance

ROA (return on assets = operating profit / total assets) is an index that expresses the company's profitability on the total assets used. It indicates how much of the assets invested returns in terms of profitability by virtue of the activities carried out by the company. Investors analyse different profitability ratios to understand how much and if the company produces adequate profitability that can ensure its survival over time. In fact, it is the profitability that allows each company to continue operating. During the 10 years analysed the values are between 2.5 and 6.8 taking into account the geographical location as a distinctive element. The higher the value of this index, the more favourable is the condition of the company. Figure 2 highlights how the values recorded are fairly stable. Southern companies recorded a decreasing trend starting from 2008 and until 2011, probably also due to the economic crisis of the period. These companies have fairly stable values between 2012 and 2015 and then grow starting in 2016. The companies in the centre have stable values substantially for the entire period analysed. Companies in the north after a phase of relative stability up to 2013 recorded substantial growth. In fact, from a value of 2.5 in 2008 we reach a value of 5.026 in 2017. The profitability of the southern companies, as can be seen from the graph, is that higher than that recorded in the other two areas of Italy. It is therefore the best profitability despite a decrease over time.

ROE (return on equity = net profit / equity) expresses the overall profitability of the company, taking into consideration the partial results of all the different managements in which it is possible to distinguish the unitary management of the company. As previously seen for ROA, even if the ROE assumes the highest possible values, the greater the profitability of the company. In this case, therefore, the company is in good health and is in a position to endure over time. During the analysed period the ROE trend assumes positive values above 2.

This implies a capacity of the company to produce income from the activity carried out. Except in 2013 in which the ROE value is close to zero for companies in the south of Italy, in all years

and geographical areas the values recorded are between 2 and 10. Southern companies have a high profitability, but more variable than in the centre and north. In fact, the ROE values are more stable in the other two areas of Italy, particularly for companies in the north. However, there has been substantial growth since 2011 in all three areas. This occurs in conjunction with the regulatory change in the procedures for defining water tariffs for end users. In fact, as previously stated, starting from 2011 the methods for determining tariffs are the responsibility of the Regulatory Authority for Energy and Gas (AEEG) ([14] – [15]), from 2018 called Regulatory Authority, Energy, Networks, Environment (ARERA).

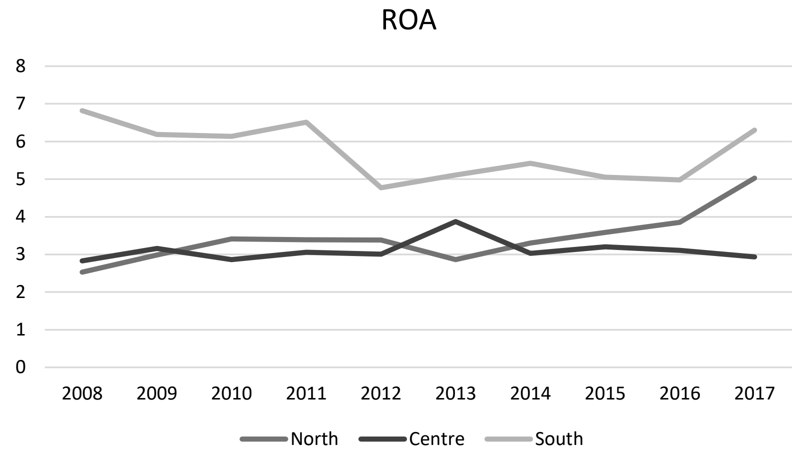


Figure 2: Trend of *ROA* according to geographic localization

Thus, the profitability of the companies analysed appears substantially increasing in the years following the various reforms that have characterized the water sector, as part of the more general process of reforming public service companies. This is particularly evident for ROE. The ROA certainly appears to be conditioned in its values by the processes of further investments in infrastructure and their increasing weight. Therefore, hypothesis H1 is substantially verified. Moreover, the values of both indices appear quite different in the different geographical areas in the case of ROE, while there is a certain similarity between the north and the centre in the case of ROA. It can therefore be said that substantially there is a difference in the results of water companies in different areas of Italy. The H2 hypothesis is therefore not verified. Thus, the results in terms of profitability of the reforms carried out in the water sector were generally positive, but with different effects in the various Italian geographical areas.

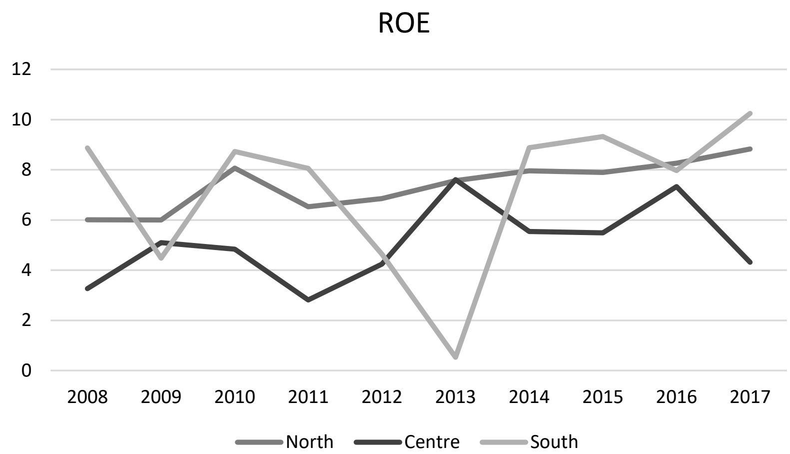


Figure 3: Trend of *ROE* following the geographical area

Analysis of variance

The results of ROA are showed in the Table 1. They have been calculated using the geographical zone as an independent variable. It can be seen that a statistically significant difference between groups is highlighted. In fact, ($F(2,27) = 56.21$, $p = 2{,}3661255297293E\text{-}10$) and F > F *crit* with a p value less than 0.05.

Table 1 – ROA – ANOVA (one-way) using as an independent variable of the geographic area

Source of variance	*SQ*	*gdl*	*MQ*	*F*	*p*	*F crit*
Among groups	*40,86087991*	*2*	*20,43043995*	*56,22170627*	*2,37E-10*	*3,354130829*
Within groups	*9,811546382*	*27*	*0,363390607*			
Total	*50,67242629*	*29*				

Significance level p>0,05

The null hypothesis must be rejected and the alternative ones must be accepted. Thus, there is a statistically significant difference between the values recorded in the period under investigation in the three different Italian geographical areas.

ANOVA (one-way) of the ROE with the geographical variable as an independent variable confirms that there is a statistically significant difference between the different geographical areas. In fact, $F(2,27) = 4.02853$, $p = 0{,}029444275$) and F > F *crit* with a p value less than 0.05.

Table 2: ROE – Analysis of variance (www.researchgate.net) with the geographic area as an independent variable

Source of variance	*SQ*	*gdl*	*MQ*	*F*	*p*	*F crit*
Between groups	33,39117827	2	16,69558914	4,028353032	0,029444275	3,354131
Within groups	111,9020362	27	4,144519858			
Total	145,2932144	29				

Significance level p>0,05

Also, in the case of the ROE the null hypothesis must be rejected and the alternative hypotheses must be considered. Therefore, for both profitability ratios analysed, ROA and ROE, there is a statistically significant difference in the values analysed.

6. CONCLUSION AND IMPLICATIONS

Since the 1990s, the water business sector has undergone a profound transformation due to the genial reform processes that have involved all public services. The need to combine resource savings with the guarantee of universal access to this service has led to numerous and varied legislative interventions.

In this sense, the interventions in favour of the growth of investments, but also of the technical quality of the service have increased ([16] - [14] – [15]).

In this general framework, the present work of analysing two profitability indices over ten years (2008-2017) shows a positive influence of the reform processes with some features.

The ROA does not appear to be particularly affected by the reform processes in the three geographical areas. In fact, the index maintains a fairly stable trend during the period analysed. However, there is a significant variation in companies in the southern regions. This indicates that there has been a greater incidence of investment processes in this area.

However, high values of this index in all areas of the country indicate a good return on the investments made. Naturally, this is also the result of an increase in tariffs towards end users.

The ROE also assumes significantly positive values in all three areas of Italy. The results appear more stable in the north, while very variable in the centre and south. Therefore, in the case of this index that measures the overall profitability of the company, there is no stability over time similar to that recorded for the ROA. This implies a greater incidence of management different from the characteristic one on the net final result of the company.

However, the common element is that overall profitability is still positive, but with obvious differences between the different geographical areas.

These differences are also confirmed by the ANOVA (one-way) which detects a statistically significant difference in the values of both indices between the three different Italian geographical areas.

The present study provides a significant contribution, because it carries out an analysis on almost all the population of Italian water companies, and does not use only one sample. Furthermore, attention is focused on two important profitability ratios. Among them, the ROA indicates the profitability of the investments, the latter element on which the recent legislative interventions have focused. The present work also has limitations deriving also from the use of only two profitability indices. In fact, it constitutes an exploratory study. Furthermore, only the companies of which all the values for the indexes analysed in the time frame under investigation are available, are considered. The study therefore does not take into account the informational limits, but also the aggregation processes that have characterized the sector. Future research lines will be aimed at taking into account more financial and income indices. Furthermore, comparisons with other European countries are interesting. In this sense, it is also useful to verify the influence of cultural variables on the performance of companies in different countries.

REFERENCES

[1] Li, L., (2018) Private *sector participation and performance of county water utilities in China*, China Economic Review, Vol. 52, pp. 30-53, DOI: 10.1016/j.chieco.2018.06.001.

[2] Maziotis, A., Saal, D.S., Thanassoulis, E., and Molinos-Senante, M. (2018) *Profit change and its drivers in the English and Welsh water industry: is output quality important?*, Water Policy, Vol. 20, n. 5, pp. 995-1012, DOI: 10.2166/wp.2014.151.

[3] Vandone, D., Peri, M., Baldi, L., Tanda, A., (2018) *The impact of energy and agriculture prices on the stock performance of the water industry*, Water Resources And Economics, Vol. 23, pp. 14-27, DOI: 10.1016/j.wre.2018.02.002.

[4] Suarez-Varela, M., de Los Angeles Garcia-Valinas, M., Gonzalez-Gomez, F., Picazo-Tadeo, A.J. (2017) *Ownership and Performance in Water Services Revisited: Does Private Management Really Outperform Public?*, Water Resources Management, Vol. 31, n. 8, pp. 2355-2373, Special Issue, DOI: 10.1007/s11269-016-1495-3

[5] Pinto, F.S., Simoes, P., Marques, R.C., (2017), Water services performance: do operational environment and quality factors count?, *Urban Water Journal*, Vol. 14, n. 8, pp. 773-781, DOI: 10.1080/1573062X.2016.1254254

[6] Mellah, T., Ben Amor, T. (2016) *Performance of the Tunisian Water Utility: An input-distance function approach*, Utilities Policy, Vol. 38, pp. 18-32, DOI: 10.1016/j.jup.2015.11.001

[7] Iovino, F. (2014) *L'internet marketing nelle imprese energetiche: il caso di un'impresa elettrica romana,* Mercati e competitività, 3, 141-161.

[8] Iovino, F., Migliaccio G. (2016*) E-marketing by energy companies. 9th Annual Conference of the Euromed Academy of Business, "Innovation, Entrepreneurship and Digital Ecosystems",* 14-16 September 2016, Warsaw, Poland, Book of Conference Proceedings, Euromed Press, 1036-1048.

[9] Iovino, F., Migliaccio, G. (2018a), *Profitability dynamics of tourism companies during the crisis period (2007-2015). In Vrontis D., Weber Y., Tsoukatos E. (Eds), Conference readings book proceedings, 11th Annual Conference of the EuroMed: Research Advancements in National and Global Business. Theory and Practice*, Valletta, Malta,September 12th-14th, EuroMed Press: Cyprus, 663-677.

[10] Iovino, F., Migliaccio, G. (2018b), *Financial dynamics of tourism companies, travel agencies and tour operators, during the crisis period*, In Conference Proceedings: 2nd International Scientific Conference on Economics and Management -EMAN 2018: Economics & Management: How to Cope With Disrupted Times, Ljubljana, Slovenia, March 22th, Printed by: All in One Print Center, Belgrade, 693-702.

[11] Iovino, F., Migliaccio, G. (2019a) *Financial Dynamics of Energy Companies During Global Economic Crisis,* International Journal of Business and Globalisation, (doi: 10.1504/IJBG.2019.10011698).

[12] Saunders, M., Lewis, P., and Thornhill, A., (2009), "Research methods for business students", (5th ed.), Pearson Education Limited, Essex, UK.

[13] Iovino, F., Migliaccio, G. (2019b) Energy *companies and sizes: An opportunity? Some empirical evidences*, Energy Policy, Vol. 128, May 2019, DOI: 10.1016/j.enpol.2019.01.027, 431-439.

[14] Iovino, F. (2012) Le *scelte delle politiche di marketing delle imprese energetiche*, Management delle utilities, 4, 23-35.

[15] Iovino, F. (2015) *Relationship marketing by Energy companies*, Review of International comparative management, 16(5), 558-573.

[16] Gronroos, C. (2005) *What can a service logic offer marketing theory*, Library of Swedish School of Economics and Business Administration, Helsinki.

TEACHING MEDIATION BY MEANS OF AN ONLINE PLATFORM*

Nicole Grmelová[1]

DOI: https://doi.org/10.31410/EMAN.2019.129

Abstract: *The Czech Republic is a country with a high rate of litigation and a low rate of awareness about alternative dispute resolution (ADR) mechanisms. One of the ADR methods, largely promoted by the European Commission, is mediation. Mediation can be either voluntary or mandated by a law court. Citizens, businesses and judges alike are likely to make a wider use of mediation if they are familiar with how it works and take into account its holistic effects. Whereas a judgment delivered by a law court is likely to resolve a single dispute, a mediation processes can remedy a wide range of relations between business contacts in commercial issues, parents of children after divorce in family cases and neighbor nuisance to create a more amicable living environment in a community of people sharing a house. The aim of this paper is to introduce a new online study platform on mediation developed in the framework of an Erasmus+ strategic partnership of six EU Universities. The Online Study Mediation Platform is aimed at both teachers and students. It encourages its users to adopt an interactive approach towards teaching and learning mediation by engaging them in practicing mediation techniques and mock mediation in both, domestic and international settings on a variety of topics which may arise in day to day situations.*

The Online Study Mediation Platform provides for a set of useful tools which trigger a gradual development of negotiating techniques employed in mediation. It stresses the principles upon which the mediation process is based and makes reference to a number of other resources which can be used in class to balance theory and practice. One of the intellectual outputs offered by the online mediation platform consists in methodological guidelines for teaching mediation at Universities. Experience shows that teachers may be reluctant to teach mediation to their students if they lack quality background documents on how to approach and structure the teaching process. The methodological guidelines bridge these knowledge and experience gaps by proposing a clear, yet a flexible way of organizing an entire mediation course at a University level. The mediation toolbox also includes short theoretical videos, longer videos on mock mediation sessions on a number of topics, a best practices manual, assessment guidelines and most importantly, a platform to practice mock mediation online with University students across the entire Europe.

Keywords: *mediation, online study platform, teaching, ADR, negotiating techniques, methodological guidelines*

1. INTRODUCTION

The length of litigation on civil and commercial disputes required by law courts may be discouraging in a number of EU Member States to enforce the rights of individuals, natural persons and legal entities alike. The Council of Europe, together with the European Commission regularly monitor the duration of civil and commercial procedure before national law courts. Statistical data seem to suggest that a certain north south divide continues to persist in terms of the duration of litigation in different EU Member States. The following figure shows that differences between the length of procedure among EU Member States are rather significant.

* This paper has been developed with the support of Erasmus+ Strategic Partnership Programme in frame of the project „Online Study Platform on Mediation", project number: 2016-1-LV01-KA203-022660. The project has been implemented between 2016 and 2019.

[1] University of Economics, Prague, Faculty of International Relations, nám. W. Churchilla 4, 130 67 Praha 3, Czech Republic

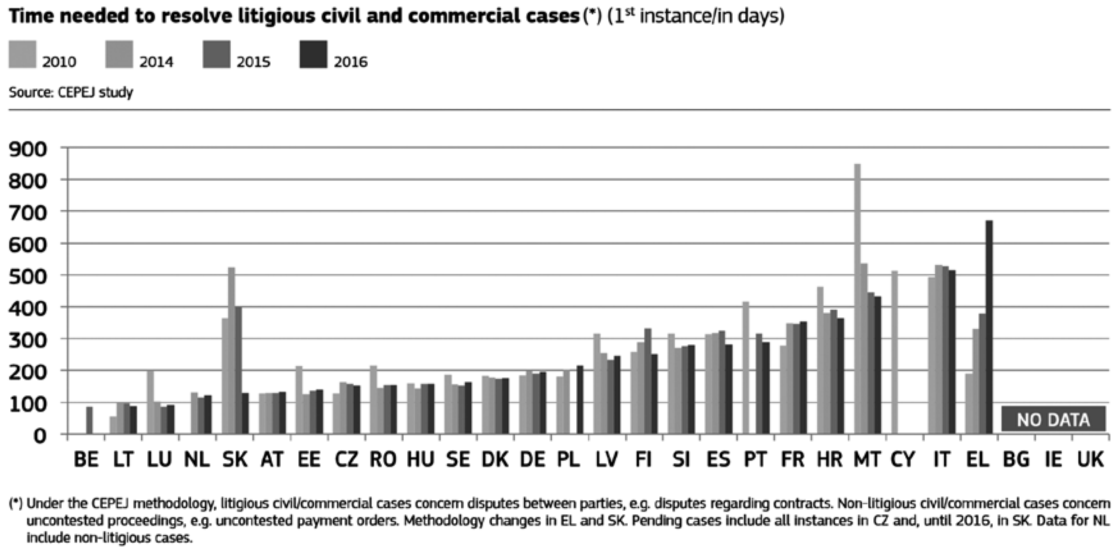


Figure 1: European Commission, The 2018 EU Justice Scoreboard [1]

Explanation of the abbreviations used in the figure above:
BE= Belgium, LT = Lithuania, LU = Luxembourg, NL = Netherlands, SK = Slovakia, AT = Austria, EE = Estonia, CZ = Czech Republic, RO = Romania, HU = Hungary, SE = Sweden, DK = Denmark, DE = Germany, PL = Poland, LV = Latvia, FI = Finland, SI = Slovenia, ES = Spain, PT = Portugal, FR = France, HR = Croatia, MT = Malta, CY = Cyprus, IT = Italy, EL = Greece, BG = Bulgaria, IE = Ireland, and UK = United Kingdom

Also, too many litigious cases are resolved by law courts, even though some of them can definitely be resolved successfully by alternative dispute resolution mechanisms [2]. The following figure shows that litigation in the Czech Republic and in a number of other EU Member States is chosen perhaps more often than necessary:

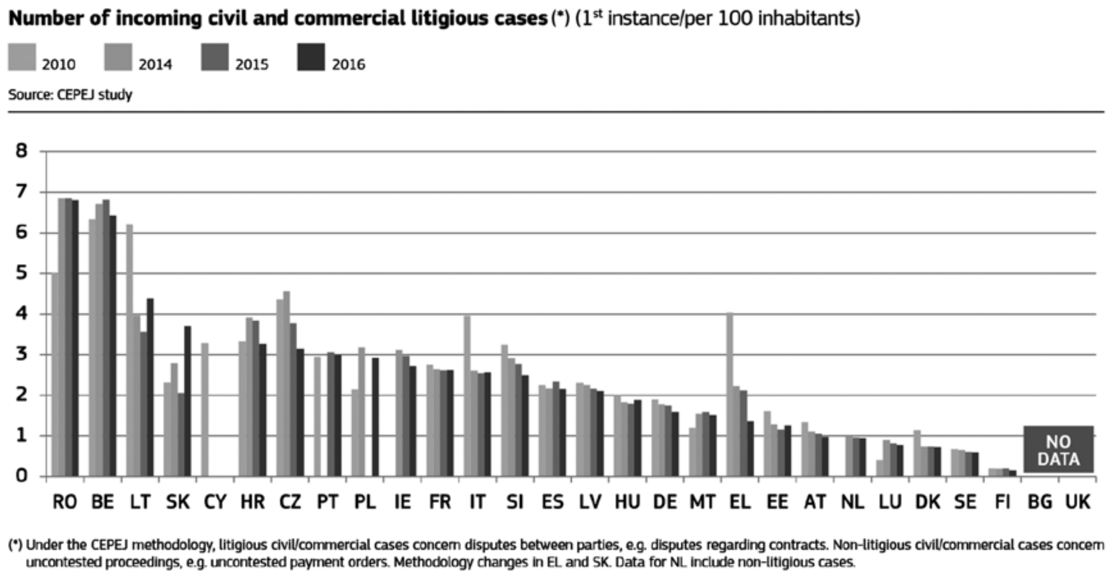


Figure 2: European Commission, The 2018 EU Justice Scoreboard [1]

For explanation of the abbreviations see Figure 1 above.

The European Commission has no power to put pressure on national judges to decide more quickly, since this would interfere with the national judges´ independence. However, the European Commission is well placed to promote alternative dispute resolution mechanisms, such as mediation. In line with this strategy, the European Commission proposed and the Council of the EU and the European Parliament adopted a basic regulatory framework of mediation in civil and commercial disputes which takes the form of a directive. As is the case with EU directives, they need to be transposed into national legal orders within the implementation period. For directive 2008/52/EC of the European Parliament and of the Council of 21 May 2008 on certain aspects of mediation in civil and commercial matters, the implementation period expired on 21 May 2011, by which date EU Member States were supposed to adopt their national measures paving the way for a proper conduct of mediation in civil and commercial matters within their own territory [3].

Whereas the legal framework of mediation has been dealt with by a number of authors (see e.g. [4] - [7]), the use of mediation will not spread unless it is accompanied by the necessary education of mediators and future users of mediation. “University education must not necessarily train mediators, but rather form professionals who should be aware of the skills needed in mediation, or who know enough about mediation to direct their clients to mediation when the need arises.” [8] This was precisely the reason why the European Commission decided to support the project aimed at creating an Online Study Mediation Platform.

This project takes the form of an Erasmus+ strategic partnership of six Universities across the European Union: the Turiba University (Latvia), the University of Graz (Austria), the University of Genoa (Italy), the University of National and World Economy (Bulgaria), the Mykolas Romeris University (Lithuania), and the University of Economics, Prague (Czech Republic). Within the framework of this strategic partnership an open access online platform for teaching and learning mediation has been developed and made available at https://mediation.turiba.lv, with the main aim to disseminate the teaching of mediation and to gradually include it into secondary schools and University curricula either as a full-fledged independent course or as a part of courses dealing with conflict resolution, psychology, sociology, and/or law and litigation. Indeed, mediation is a multidisciplinary phenomenon which cannot be limited to questions of law, since without good negotiating skills even the best lawyer may be unable to resolve a singled dispute as a mediator.

2. METHODOLOGY OF TEACHING MEDIATION

Many University teachers and lecturers may be reluctant to introduce a new class or a new course on a topic which requires extensive preparation and lacks the necessary resources, as to the methodological approach which should be adopted. The Online Study Mediation Platform provides an open access to methodological guidelines which offer an organized structure of classes and a number of interactive activities likely to raise students´ interest in mediation. It suggests different negotiating techniques employed in mediation while not neglecting the regulatory framework thereof. The methodological guidelines also offer a number of options for organizing a final exam in a mediation course while proposing some model questions which may be used for the theoretical part of the test. Also, the methodology provides for a number of scenarios for practicing mock mediation on a number of topics, covering civil law, commercial law and criminal law. Some of these examples are also accompanied by model solutions of the mock scenarios. The methodological guidelines make reference to more resources which are available at the online mediation platform and will be discussed in the following subchapters.

3. BEST PRACTICES MANUAL AND VIDEOS

Since teachers who do not conduct mediation in practice may lack the necessary experience of when mediation is likely to be successful and when not, a best practices manual has been compiled and made available in the teachers section of the online platform which also features a student section, while both parts are accessible to everyone, teachers and students alike. The teaching section includes the methodological guidelines in English and Czech [9] mentioned above, the best practices manual, assessment guidelines, sample cases for mediation role plays, and links to useful resources, whereas the students part includes a mediation ABC, an ABC test, an E-book, training videos and video lessons as shown on the print screen below:

Figure 3: Structure of the Online Study Mediation Platform
(Source: https://mediation.turiba.lv)

The difference between training videos and video lessons lies in their duration and objectives. Training videos contain examples of mock mediation cases in a number of areas (a commercial dispute, a civil law disputes, a criminal dispute, and a neighbourhood dispute) and enable students to observe the techniques used in mediation (such as rephrasing, reframing, mirroring, use of a flipchart, and/or using separate sessions with parties). Also, the approach of the mediator can be observed and discussed as well as the setting of the room where mediation sessions are to be conducted. On the contrary, video lessons are much shorter and more theoretical. They discuss topics such as the ABC of mediation, the methods of choosing a mediator, and special techniques employed in commercial mediation. Even though these online resources cannot fully substitute a teacher or a lecturer they are capable of rendering the class more varied and livelier and to draw students´ interest in mediation, either as future accredited mediators or as future users of mediation [8].

4. ONLINE MEDIATION TRAINING TOOL

The online study mediation platform has developed a unique tool by means of which its users may conduct mock mediation across different universities within a single country or even in cross border situations. All students nowadays have been acquainted with distance communication methods online, such as Skype conferences. The online mediation training tool follows

this vein by providing a venue where those learning mediations can practice it both as mediators and as parties to mediation. These mock mediation sessions may also be recorded observing the necessary rules based on the EU´s General Data Protection Regulation and critically assessed by lecturers and students in subsequent classes to improve the skills necessary to conduct a successful mediation. To find University teachers from other EU Member States or from within the same Member States lecturers may post their expression of interest at the Facebook page of the Erasmus+ project available at Facebook.com/mediationnetwork/. The section of the online platform providing the conduct of mock mediation is the only section which requires registration. The registration process, however, is hassle free and does not require the disclosure of any sensitive personal data.

5. CONCLUSION

The use of online tools in the teaching process has been subject to a number of scholarly papers [10]. Whereas online tools are unlike to substitute a teacher, they can render the class livelier and more interactive. Nowadays, teachers face a challenge of a lack of concentration on the part of students. This means that the use of monologue lectures can no longer draw the attention of students without involving them actively into the topics discussed. The author believes that the online study mediation platform is an ideal tool to foster EU wide dispute settlement and to provide University students with the gist of mediation which they will be able to use either as clients or following further training as professional mediators.

The teaching of mediation with the assistance of the online study mediation platform helps develop students' soft skills generally neglected in higher teaching. The practice of soft skills can convert teaching from being boring to being fun, in line with the legacy conveyed by Jan Amos Comenius, a renowned Czech philosopher and teacher, considered to be the father of modern education.

REFERENCES

[1] European Commission (2018) *The EU Justice Scoreboard*, Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, COM (2018) 364 final

[2] Deffains, B., Demougin, D., Desrieux, C. (2017) Choosing ADR or Litigation. *International Review of Law and Economics*, vol. 49, pp. 33-40.

[3] Engstrom, D.; Cornel, M. (2011), Striking the Hard Bargain: The Implementation of the EU Mediation Directive in Sweden, *IBA Mediation Newsletter,* pp. 22-24.

[4] Rone, D. et al. (2015) *Mediation to Foster European Wide Settlement of Disputes. Ebook*. Available at <https://mediation.turiba.lv/index.php?id=42>

[5] Alexander, N., Walsh, S., Svatoš, M. (2017) *EU Mediation Law Handbook: Regulatory Robustness Ratings for Mediation Regimes*. Alphen ann den Rijn: Wolters Kluwer.

[6] Nolan-Haley, J. M. (2012) Evolving Paths to Justice: Assessing the EU Directive on Mediation, *Proceedings of the Sixth Annual Conference on International Arbitration and Mediation*, Fordham University Law School, Martinus Nijhoff Publishers, Fordham Law Legal Studies Research Paper No. 1942391.

[7] Esplugues, C. A. (2014) Mediation in the EU after the Transposition of the Directive 2008/52/EC on Mediation in Civil and Commercial Matters, in Esplugues, C. (ed.), *Civil and Commercial Mediation in Europe: Cross-Border Mediation Vol II.* Cambridge: Intersentia, pp. 485-771.

[8] Cominelli, L. (2016) Training Young Lawyers in the European Mediation Framework: It's Time to Devise a New Pedagogy for Conflict Management and Dispute Resolution, *The Italian Law Journal*, Vol. 2, Issue 1, pp. 163-176.

[9] Rone, D., Grmelová, N., Andreisová, L. (2019) *Metodická příručka pro výuku mediace na vysokých školách*. Praha: Troas.

[10] Schmidt, K., Brown, D. (2004) A Model to Integrate Online Teaching and Learning Tools Into the Classroom. *The Journal of Technology Studies*, Vol. 30, No. 2, pp. 86-92.

THE SUPPORT OF INTERNATIONAL INTEGRATIONS AND INSTITUTIONS

Maja Vojinović[1]

DOI: https://doi.org/10.31410/EMAN.2019.135

Abstract: *Nowadays there are different types of cooperation between sovereign states. The cause of any cooperation is globalization, which fosters international relations and contributes to their diversity. In order to talk about cooperation between countries on a global level, we must first start with one country and its region. From what kind of qualitative and quantitative relations it establishes with the countries in its region will depend the appearance on the global scene. In addition to bilateral and multilateral cooperation, there are institutionalized forms of economic, financial, technological, security and other types of cooperation between the regions of certain states (provinces, republics), the states within the formed regional economic integration (groupings), and the regional integration itself. The most prominent among all aspects of regional relations and cooperation are certainly economic relations. The emergence of numerous regional integrations has become a global trend. Therefore, we can conclude that the contemporary world economy is characterized by the process of globalization, that is, the process of economic integration and cooperation at the macro and micro level, on the basis of that greater international trade and interdependence of the economies of different countries. The modern history of European integration is related to the period after the Second World War when the ideas of European unity get their formal framework. However, the idea of European communion is much older, and there is almost no history of civilization since ancient times to date, which has no foundation in the existing concept of the European Union.*

Keywords: *integrations, institutions, regional, international, management, economy, EU.*

1. INTRODUCTION

International economic integration as a form of economic integration of countries has a long history. By the nineteenth century economic integration between the independent states was realized in the regional economic space. During the nineteenth century, economic integration processes emphasized the attributes of national homogenization and the formation of national states. The twentieth century marked a very pronounced dynamism of continental economic integration. International economic integration is characterized by the association of national economies with the aim of eliminating customs and many forms of non-tariff barriers and other restrictive measures aimed at restricting free international trade, human and capital movements, as well as all other factors of production that relate to third countries - non-members of the economic integration.

1. 1. The notion of regional economic integration

Over the past six decades, various forms of economic integration have expanded widely, practically covering all parts of the world. There is no generally acceptable explanation for the key factors in the development of regional economic integration; it is clear that each regional agreement represents a cooperative effort by individual states in order to achieve the most diverse, economic and political goals.

[1] Faculty of Management, Sremski Karlovci, Serbia

In a sense, economic regionalism is the answer of national states to the common economic problems that generate the development of the world economy. As the international economy becomes increasingly connected, regional groups of states are increasing co-operation in order to strengthen their independence, improve their own positions and achieve political and economic goals. In addition, it should be kept in mind that regional integration is not an alternative to the national state, but rather signifies the concrete attempts of individual states to jointly realize their vital national interests and ambitions.

1.2. European rehabilitation

The momentum of the formation of regional integration is basically a political and economic character. After the Second World War, starting from the creation of the European Rehabilitation Program (Marshall Plan) until the collapse of the Bloc division of the world in 1989, the basic driving impulses of the regional integration processes were emphasized by political nature, while economic considerations were in the second plan. After the collapse of the bloc's division of the world, military and political influences have been diminished at the expense of increasing economic interests in the complex processes of creating new regional integration in the world.

However, some analysts rightly observe, that without good political relations among member states, it is not possible to successfully develop economic integration.

Effective growth

Regional economic integrations are implemented through agreements of countries belonging to the same region. Today, around thirty regional economic integrations operate in the world, which occupy about 80% of the world market.

The key economic motive for the emergence of regional integration is in the effort to increase efficiency with this act. Efficiency growth is achieved thanks to: removing barriers in the store, reducing the costs of trade, encouraging exports, secure access to the markets of partner countries, increased investment opportunities in a wider, integrated market, increased competition in the internal market, using the economies of scale, which the integrated market allows, strengthening the service sector, facilitating the exchange of technical information and knowledge between companies, supporting research and development activities, and the creation of new technologies, products and services.

2. EUROPEAN TRADE ORGANIZATION

The World Trade Organization is the youngest international economic organization and only exists for more than ten years. Its importance for conducting international trade in goods and services is extremely high. The World Trade Organization is promoting free world trade, which should result in increased international trade flows, profits for businesses, the population and society as a whole. Member States of the World Trade Organization denounce national sovereignty in the conduct of foreign trade policy in order to secure the benefits deriving from membership of the World Trade Organization.

2.1. European Union

The European Union is a result of the process of cooperation and integration that began in 1951 between the six states. After nearly 50 years with four waves of EU integration today, there are several member states that pretend to be their fifth coupling, this time towards Eastern and Southern Europe. The mission of the European Union is to organize relations between member states and their people on the basis of solidarity.

The main objectives of EU are: promotion of economic and social progress (a single market was established in 1993, a unique monetary policy in 1999), presenting the EU's identity on the international scene (through EU assistance to non-EU countries, joint international and security resolutions, actions in international crises, common position among international organizations), inflicting European guards (which does not change national citizenship), developing a field of freedom, security and justice, maintenance and construction of EU laws.

2.2. Member States of the European Union

Primary concerns of the EU are putting individual and their interests at the heart of European integration. European institutions consider the respect of fundamental rights as a fundamental principle of European law and have developed legislation on freedom of communication within the EU. With the Maastricht resolution, the links between the citizens in the Member States and the EU became more direct, by breaking the concept of European citizenship that represented the series of Guardian and Political Rights. These rights are further developed through the Amsterdam Resolution, which also specifies the link between national citizenship and European citizenship.

Unlike the concept of deepening integration, which becomes the basic label of the European Community since the adoption of a single European act and the project of a single market, the creation of the EU, the strengthening of the role of the European Parliament and the enhancement of the importance of qualified majority decision making, another key concept of integration is the enlargement.

It is actually about enlarging the Union to the east of Europe and joining the membership of a number of different countries, which is gaining momentum at the beginning of the 21st century. Conversely, however, it is not possible to talk about increasing membership, but to keep in mind the question of maintaining the success of the achieved level of integration, as well as to ignore the future number of counties when it comes to projects of further integration.

In the European union, the „regatta approach" is accepted, which means that countries that successfully meet the criteria become members regardless of when the negotiations begin with them.

European Parliament

It is elected every 5 years by direct vote. The European Parliament reflects the democratic will of the united 374 million citizens. Together with pan-European political groups, the most important political parties of the member states are presented. It has 3 basic functions: delegates with the power of law enforcement, i.e. adopts European laws, together with the Council, it manages the budget - impacts on EU spending, has democratic control over the commission. It is situated in Strasbourg.

European Council

It is the main body for decision-making in the EU. The council meets in a diverse composition: foreign affairs, finances, bargaining, telecommunications. It has a certain number of obligations such as: it is the legislative body of the Union and exercises legislative power together with the European Parliament, coordinates the economic directions of the Member States, concludes the arrangements on behalf of the EU, manages the budget with the parliament, decides on a common international and security policy and coordinates the activities of the members.

The European Commission

It maintains and supports the general interest of the Union. The manager and members of the commission are elected by the Member States since they have been previously approved by the European Parliament. The Commission is the administrative power of the Union's institutional system: has the right to produce draft laws, and then presents them to parliament and council, as an excellent body, it is responsible for the implementation of the religious legislation, the budget and the programs adopted by the Parliament and the Council, acts as a guardian of the proceedings and, together with the court of justice, ensures that the law of the community is properly applied, represents the Union on the international stage and negotiates mainly in the field of international exchange and cooperation.

Other institutions which are of the crucial importance for the work of the European Union are: Court of the Listeners which checks whether the taxes of the Union have been collected and all its expenditures have been spent according to the law, and whether the financial management of the EU is in order; then, European Central Bank that frames and implements European monetary policy, manages operations of international exchange, and enables smooth operation of payment systems. Economic and Social Committee represents the views and interests of civil society in the Commission, the Council and the European Parliament. The committee must be consulted on issues of economic and social policy and may give opinions on an independent initiative on other issues. Committee of the Region takes care of the respect of regional and local identities, it needs to be consulted on issues of regional policy and education. It is composed of representatives of regional and local governments.

European Investment Bank is a financial institution of the EU. It finances investment projects that contribute to the balanced development of the Union and finally European Ombudsman (all individuals or entities living in a union can be seduced if they consider that they are subordinated to an act of „maladministration" by the EU institution or some of its bodies).

3. CONCLUSION

International organizations are the creations of recent times. Stricter awareness of the need for international cooperation is conditioned by economic and technological development. The need for, and later, the realization of wider and complex interstate relations required the regulation of this new space. In the absence of the world government, such tasks could only be answered by an organization that made it possible for states, while remaining equitable and without acknowledging any superior authority, to jointly make decisions and ensure the execution of all supporting actions. Thus, international organizations have emerged as a means of continuous cooperation in order to realize the interests that are common to the United States. Today, in-

ternational organizations despite their development are essentially the same. They do not deal with the creation of worldly or general human interests, but seek common denominators in the aspirations of all countries in order to find a common solution.

General theory of international organizations has the task of studying the common features of such organizations, to create a transparent system, to determine the principles on which they operate, to establish the legality of their development, and to criticize existing organizations from the point of view of the real needs of the media cooperation and aspirations to achieve the true values. In order to ensure mutual exchange, the free movement of labor, services and capital between different countries has created economic integration. The agreement is an instrument used to manage this integration.

REFERENCES:

[1] Bodiroža M, Acin, Đ. (2005): *Međunarodna Ekonomija*, Univerzitet u Istočnom Sarajevu, Ekonomski fakultet u Brčkom, Brčko.
[2] Dezmond, D. (2010): *Menjanje Evrope: Istorija Evropske unije*,Službeni glasnik, edicija Evropska Unija, Beograd.
[3] Dezmond, D. (2009): *Sve bliža unija: Uvod u evropsku integraciju*, Službeni glasnik, Beograd.
[4] EEC, European Council (1989): *Council Directive of 21 December 1989. on the coordination of the laws, regulations and administrative provisions* relating to the application of review procedures to the award of public supply and public works contracts. Official Journal of the European Communities, L, No. 395, 30. Dec.
[5] Kovac O., Popovic T. (1995): *Prilagodjavanje privrede uslovima poslovanja na trzistu EU*, Institut Ekonomskih nauka, Beograd.
[6] Lopandic D., Janjevic M. (1994-1995): *Ugovor o EU*, Medjunarodna politika, Beograd.
[7] Tomić, Z.R. (1995): *Upravno pravo*, Draganić, Beograd.
[8] Vukadinović R., Čehulić L. (2011): *Politika europskih integracija*, Naklada Ljevak, Zagreb.

INTERNET SOURCES:

[1] https://www.srbija.gov.rs/tekst/330296/evropske-integracije.php.
[2] https://www.sr.wikipedia.org/wiki/ekonomske_integracije a www.schribd.com/doc/.
[3] https://www.eu.com

THEORY OF PUBLIC ADMINISTRATION MANAGEMENT – A RETROSPECTIVE VIEW

Zdeněk Fiala[1]
Olga Sovova[2]

DOI: https://doi.org/10.31410/EMAN.2019.141

Abstract: *Since the 1970s, especially in the 1990s, an increased interest in management and implementation of its knowledge in the environment of its performance has been seen within progressive public administration reforms. The cause of penetration of managerial approaches to public administration management lies in limited possibilities of public finances, especially taking into account the tasks of the social state, structural economic changes and internationalisation of public affairs. The reform processes are, in particular, aimed at reducing the bureaucratic burden on public administration and the transformation of social politics in line with the economic possibilities of a particular country. Pressure on these processes in public administration is increasing, of course, even with regard to socio-demographic changes resulting in ageing population and an increase in social spending. Within the reform and modernisation processes in public administration, it is therefore primarily important that the authorities of state administration and self-governance are equipped with better tools and get freer power to effectively perform their tasks whilst fully maintaining their responsibilities. The paper focuses at analysing the concept of good governance, respectively its individual determinants in particular time periods of social and legal development; it is also aimed at bringing to light the ideas of experts who have criticised the concept of the traditional model of public administration and who have emphasised the necessity to introduce management methods into public administration; on this basis it is focused on pointing out the relation of good governance and the modernisation of public administration.*

Keywords: *public administration, management, governance, theories, principles.*

1. INTRODUCTION

Since the 1970s, especially in the 1990s, an increased interest in management and implementation of its knowledge in the environment of its performance has been seen within progressive public administration reforms.

The cause of penetration of managerial approaches to public administration management lies in limited possibilities of public finances, especially taking into account the tasks of the social state, structural economic changes and internationalisation of public affairs. The reform processes are, in particular, aimed at reducing the bureaucratic burden on public administration and the transformation of social politics in line with the economic possibilities of a particular country. Pressure on these processes in public administration is increasing, of course, even with regard to socio-demographic changes resulting in ageing population and an increase in social spending.

Within the reform and modernisation processes in public administration, it is therefore primarily important that the authorities of state administration and self-governance are equipped with better tools and get freer power to effectively perform their tasks whilst fully maintaining their

1 Police Academy of the Czech Republic, Prague
2 Police Academy of the Czech Republic, Prague

responsibilities. Regarding this issue, Hendrych [1] states that "managerial approaches can be applied rather in the internal organizational structure of public administration and in its effective management in terms of both factual and personal aspects than in external operations of public administration considered as services for citizens". According to Máša [2], who defines the content of management in the sense of a specific type of management as "effective human activity which is aimed to influence the operation of the managed system in accordance with the adjusted objective, whereas the general function of management is in particular the process of constant selection of objectives and subsequent regulation, e.g. selection of resources and methods in ensuring human cooperative activities", it is necessary to apply the managerial approaches in the public administration, especially when defining and setting its objectives. Similarly, Průcha [3] expresses the view that, "in order to achieve the objectives and fulfilment of tasks of public administration, both in the sector of state administration and more in the sector of self-government, it is necessary for the public administration itself (of course within the limits of the law) to specify the objectives by itself". Here, according to the authors quoted, the economic aspects of public administration are manifested the most and the knowledge of economic sciences, mainly the management, can be utilised.

This paper is aimed at analysing past and current management theories related to so-called good governance respectively addressing their individual determinants in specific time periods of social and legal development. In this context, it nears the ideas of experts who have criticised the concept of the traditional model of public administration and who have emphasised the necessity to introduce management methods into public administration, mainly within the concept of New Public Management and good governance.

2. THEORIES OF PUBLIC ADMINISTRATION MANAGEMENT

The original concept of the **traditional model of public administration**, based on the ideas of J. M. Keynes and his followers and on the concept of rational bureaucracy of M. Weber, was strongly criticised as a result of the post-World War II crisis. H. A. Simon [4] questioned the rationality of individuals by pointing to the fact that objectively-rational decision making is unrealistic because it puts exaggerated demands on the decision maker's cognitive abilities. This is because decision-making is determined by the determinants of the decision-maker – e.g. his/her abilities, knowledge, personal objectives and interests, immediate condition – psychological condition, mood and objective conditions of material and non-material nature. K. Merton [5] criticised the direct regulation of officials, working in his thesis with terms such as "bureaucratic ritualism" or "trained incapacity".

Other major critics of the traditional model of public administration include P. Selznick [6] and A. W. Gouldner [7], who have pointed out the shortcomings of formally emerging and managed organisations, and indicated the fact that the concept of rational bureaucracy was, in practice, different from what M. Weber assumed, and that it basically deforms the ways of managing public affairs. In his book, entitled Bureaucracy and Representative Government, W. Niskanen made the bureaucrat's economic effort to maximise the budget standing in the centre of his analysis. He considered the main shortcomings of the traditional model of public administration, in particular, to be bureaucratic wasting and inefficiency (he criticised that the authorities did not have a clearly identifiable baseline which would resemble the net income of corporation and according to which the office's performance could be assessed; he also criticised the fact that information regarding authorities' performance originates from a biased source - e.g. the

authorities themselves; he considered legislative control to be complicated because insufficient efficiency of operations does not lead to cessation of operations in the public sector; he pointed out the fact that the bureaucrats and their clients often create powerful coalitions seeking to increase their budget). Last but not least, in the context of criticism of the traditional model of public administration, it is necessary to mention O. E. Hughes [8], who asserts that the existing model of public administration based on the career system conflicts with reality for several reasons. For example, in the words of the author, "such administration which is based on formal control by political management, on a strict hierarchical model of bureaucracy and which consists of neutral, anonymous officials who are employed in permanent-time employment relation, those who are motivated by public interest, who do not contribute to politics, those who only manage politics adopted by politicians". In particular, O. E. Huges points out the possible negative consequences of bureaucracy, stating that "traditional bureaucracy has a dominant structure and output is a secondary affair" [8]. Furthermore, he criticises the unrealistic nature of strict separation of politics and administration, asserting that "the traditional form simply does not reflect the extensive, managerial, policy-making role performed by the modern public service (…) Public servants also play their important managerial role which is more important than simple managing and following instructions" [8]. Hughes also criticises short-term thinking (planning) for this model, pointing out that the insufficiently adjusted objectives and ineffective system of their control can result in the fact that officials would perform inadequate functions; he also adds that the mere size and variety of the public sector is the result of difficulty of its controlling and coordination.

Naturally, other areas of the traditional model of public administration have also been criticised. For example, T. W. Wilson [9] demands a strict separation of politics and administration, which would make it possible to remove arbitrariness and corruption in the administration. He holds the opinion that administration lies outside the sphere of politics. Administrative issues are not political issues, and even if politics set up tasks for administration, they should not be allowed to manipulate its performance.

While influenced by the above-mentioned critical responses, the public management concept emerged during 1970s; it became a dominant approach to public administration and public affairs management in the second half of 1980s. As a result of increasingly frequent tendencies to see the administration as business, it is a base for the **New Public Management**. The reason was dissatisfaction with the achieved results, which caused the need to apply the economic criteria to a much greater extent in the way of administration, respectively management of the public sector, especially the principles of project management. New public management is primarily focused on implementing strategic and other objectives. Therefore, it is also usually defined as a way to effectively and efficiently achieve the objectives through individual authorities and organisations [10].

New public management is thus oriented on results and on clients; for this purpose, it utilises management knowledge by objectives, as well as measurement of performance and market mechanisms. It seeks to break down the traditional models of organisational structures of public administration; it emphasises the need to move towards more flexible, smaller and more specialised organisational units which will be fitted with more decision-making powers (decentralisation and deconcentration of public administration). These should then be able to respond more effectively and in a more operational way to the specific requirements of clients - in application to the public administration, citizens. New public management also promotes creation of a competitive environment between the public and private sectors in the field of service delivery; it

promotes a market-based approach (citizens are consumers that need to be satisfied) and it also places a high level of responsibility for results on the manager. A typical characteristic feature of this model is also the so-called controlling within where periodic checks of current conditions and a comparison with the desired and planned conditions take place. As a result, corrective measures are taken. Since the 1990s, New Public Management has focused on the efficient use of resources to achieve a high quality of the services provided. This is a service-oriented model of management of public administration organisations.

Gradually, there are other concepts or sub-concepts attempting to improve New Public Management, or its modifications for the satisfaction of citizens. For example, we can mention the **concept of New Public Administration** based on the ideas of D. Waldo [11], who questioned the dichotomy of governance and politics, emphasising that public administration theory cannot be free of political values and interests. According to this concept, responsibility for administration of public affairs shall be borne by such a government which consists of representatives of political parties; it means the government is political and accountable to parliament or a similar representative legislative authority, it is responsible for assuring that the official organ is impartial, sufficiently educated and also for assuring that the minimum of defined standards will be met.

In the context of the introduction of managerial approaches in public administration, mainly in the branch of territorial self-government, whose main task is to provide public and publicly beneficial services, the **concept of Total Quality Management** was established in the first half of the 1990s. Regarding this concept, it seems appropriate to point out that it was originally developed for the needs of commercial subjects, but some of its elements also penetrated the public administration. However, if competition in the market in private sector is the "driving engine" of modernisation processes, in the non-profit sector, e.g. in public administration, then it is most likely about the satisfaction of citizens as consumers of services and potential voters and co-creators of this system. Therefore, the customer-supplier relationship is meant as the core of this concept. For this approach, it is typical to apply certain marketing methods consisting in qualified finding of the views of clients (citizens) related to timeliness and quality of the services provided to them.

There is also the **concept of New Public Service**, which responds to the shortcomings of the New Public Management. According to this concept, public administration shall not be aimed at controlling or managing society, but at assisting citizens in satisfying and achieving their interests. [12]

The New Public Management concept is also criticised by another, now probably the most important managerial approach to public administration, which is referred to as Governance or Good Governance, due to the unilateral position of citizens in the role of consumers of services. This fact is also often referred to as the main issue of New Public Management. In this regard, it can be said that relations between citizens and public administration cannot be seen only in the sense of the relation between service provider and consumer (consumer or customer). Citizens are co-creators in the democratic, political, state and administrative system; it means they are not only clients of services but also holders of rights at various levels of self-government. This aspect also needs to be applied when implementing management into public administration - it means that the role of a citizen as a co-creator of the administrative system must not be underestimated.

The Good Governance approach is thus oriented towards finding an optimal governance system which is effective and conducive to economic prosperity and social balance, which is important for maintaining trust. Regarding the above-mentioned critic of New Public Management, involvement of the private and non-governmental sector seems to be a key point as seen from Good Governance; participation of the private and non-governmental sector in management and administration strengthens legitimacy and competence of management, especially in terms of communication and feedback. Strengthening the role of a citizen (his/her participation) in this system shall be reflected in deepening / restoring confidence in public administration (government). It should be realised that the citizens themselves are the constituents of this system, ultimately and in the framework of the implementation of their electoral law.

The original Governance concept was first mentioned in the report of the world bank Sub-Saharan Africa: From Crisis to Sustainable Growth (A long-term Perspective), year 1989. There was discussion of further development and solution of the problems existing in this area. However, this concept has undergone extensive revision in a relatively short period of time; it was developed to the current form known as good governance, which, since 2000, has been the main thought stream whose influence on the practice and theory of public administration is unquestionable. The main features of this concept have been reflected in major international documents of prominent organisations very quickly, such as the World Bank, the European Union, the Organization for Economic Cooperation and Development, the Organization for Security and Cooperation in Europe, the International Monetary Fund, the United Nations, etc. The governments of individual countries in Europe responded similarly to these institutions. The Good Governance approach gets closer to the forefront of interest of professionals involved in public policy and administration issues.

Nowadays, the concept of "good governance" enjoys considerable popularity. It is included in almost every major legal document or study of public administration, including acts of European institutions. At the moment, at least, we can mention the Charter of Fundamental Rights of the European Union and the European Code of Proper Administrative Practice. However, it is not legally defined in any of them. International documents are based on the term of good governance; and they help to fulfil it further, mainly by formulating certain requirements, standards and principles. A similar situation exists in the Czech legislation, where the term Good Governance is used both by Act No. 349/1999 Coll., related to public defender of rights, as amended; and also, by Act No. 500/2004 Coll., Administrative Code, as amended; but even they do not define it more closely.

In theory, however, we can find a number of attempts at defining this concept. For example, Cheema [13] characterises Good Governance as a "set of values, policies and institutions through which the society manages economic, political and social processes at all levels through interactions between government, civil society and private sector. It is the way how society achieves mutual understanding, agreement... consensus in mechanisms and processes through which citizens articulate their interests and implement their rights and obligations. It is a framework of rules, institutions and practices which set up limits and provides motivation, for individuals, organisations, and business". The above-mentioned definition shows that Good Governance cannot be translated and identified with the government in the institutional meaning; it is rather the area in which the government operates and its activities (governance). The concept of good governance therefore highlights the interactive relationship between government and non-governmental units of society [14]. It is based on mutual relations between the government and citizens, wider public and public service clients [15]. Simply put, it is predominantly based on

people's suggestions [16]. Governance is a wider concept than the term government. It is about the study and understanding of power, relations and responsibilities. Governance involves the "interaction between structures, processes and traditions which determine the way how power is applied, how decisions are taken and how individuals can establish themselves in society". On the other hand, the government is an institutional organisation operationalising the principles of governance. Good Governance is therefore the "art of managing society and organisations". The British author, A. Massay [17] states that the term Governance "reflects fragmentation and complexity of the modern state (...) it represents activities simultaneously placed on several different levels of government: local, regional, national and global (...) Governance represents differentiation of government, governmental functions and governmental power". Similarly, according to Smith [18], the concept of good governance reflects "recognition of the type of government and its political values, as well as some type of additional components related to that government". In other words, good governance means government plus something more. This "something more" means, for example, the creation of public policies, a system of economic relations, the role of the non-governmental sector in trade and state affairs.

However, the above-mentioned definitions of good governance cannot be considered as exhaustive, satisfactory and generally accepted. In this context, it should be noted that a large number of authors [19] - [24] are asking many questions, in connection with attempts to define good governance (What exactly does this term mean? What was the intention of the World Bank when defining this concept for the first time? What were the critical responses to this concept? Is this a universal concept? How can the system of this concept be improved? etc.); this is also caused by the fact that good governance is an open and dynamic concept. In this context, it can be postulated that "the dynamic principle in a general form emphasises the particular trend. It should not, therefore, be expressed in too rigid terms**".**

Good governance is not just a legal matter. This includes, for example, quality of management, management of human resources, training and expertise of public employees, changes in thinking, and attitude to citizens. Thus, the content of the concept of good governance is not exhausted only by observing legal procedures. In order to legitimately speak about good governance, it is not enough to be just in accordance with the law - even the lawful procedures can be considered as improper in certain cases - for example, sticking to legal formalism and prolonging the proceedings. This means that, when improving performance of public administration, it is necessary to consider aspects other than legal ones. Ethical, moral and economic aspects must especially be taken into account.

It can be stated, therefore, that the concept of good governance is relatively difficult to define with regard to the ongoing process of formulating its individual components. Similarly, like the term "good morals" or "good faith", it is an uncertain legal term which should be interpreted in concrete contexts. Nevertheless, we can agree with statement of Vopálka [25], who states that "the concept of good governance belongs to those which have been well-chosen, in the set of terms related to administration, due to its comprehension. The term good governance indicates its content and at the same time presents it as tendency. Everyone will probably be able to communicate ideas and will probably begin by assessing what and how the governance does".

Requirements for good governance are reflected in the ability of a state to serve its citizens, whereas the emphasis is given to rules, processes and behaviours used to articulate interests, manage resources and apply power in society. Good governance is understood as a key concept for the stability and performance of society. Poor governance results in injustice, inconvenience

to people through excessive bureaucracy, delays and other undesirable consequences. However, at the same time, it is important to realise that good governance does not only consist of proper contact with citizens; it means that it does not just start on the output; it also includes the organisation and functioning of administration, high-quality legislation, expertness, ethics and, last but not least, relations between politics and administration. Even these requirements for good governance are necessarily reflected in its principles. However, first and foremost, satisfaction of the citizens should be the basic benchmark, but not the only one, to achieve good governance.

Formulating good governance in the sense of final requirement for behaviour of public authorities, which is not directly imposed by law, but which we can still justifiably demand, is achieved by setting individual sub-principles. These are marked as (sub) principles of good governance, or its principles. Just as there is no unambiguous, inclusive and clear definition of good governance, there is not even a comprehensive catalogue of good governance principles. International documents in which the principles are formulated, however, usually require the same. It can be said, therefore, that the content of basic principles of good governance has been slowly stabilised at the present time. Individual parts of "good governance", such as legality, reliability, predictability, openness, accountability and efficiency, constitute the pillars of European administrative law. As said by S. Skulová [26], "... principles of good governance cannot be understood purposelessly or as a set of randomly formulated demands for public administration. These principles, individually, in mutual ties and contexts, as a certain system, by their synergistic function, are to be used to fulfil or rather to get closer to fulfilment of the core values which are in the foundations of a modern law-based country".

Depending on the context, proper administration of public matters shall include the following: full respect to human rights, principles of law-based country, active participation of citizens in control activities - partnership, political plurality, transparency and reliability of processes, effective public sector, legitimacy, access to knowledge, information and education, as well as the values which support reliability, solidarity and tolerance.

3. CONCLUSION

The issue of a mutual relationship between public administration and management can be concluded by Hughes's statement. He said that "... even if public management is not firmly established and even if it gets known that some changes may work better than others, it will not be possible to return to the traditional governance model which worked for most of the twentieth century. Change to the management model now seems to be irreversible" [8].

Implementation of management methods into public administration is undoubtedly reflected in its content. Understandably, a public administration operation will be effectively influenced by high-quality management which simplifies processes, controls spending of financial funds, checks tenders and correctness of contractual relations, streamlines resources used by the authority (mainly the software), provides high-quality education for officials, sets up a functional motivation system, builds a high-quality team, etc. However, **public administration needs its own specific form of governance, not just a form borrowed from the private sector**. In this environment, managerial approaches created in the private sector cannot be applied automatically without further action; specific matters of operations and missions of the public administration must always be taken into account. Briefly, in transferred meaning, Fukuyama's statement shall be applied, which states that not everything that has been proven in the West is

also applicable in the East. Here, Fukuyama refers to the violent implementation of democracy in Muslim countries, emphasising the necessity to respect differences and specifics during the implementation of management in practice of public administration. Therefore, in order for managerial approaches and methods to achieve relevant results and for the results to be implemented in practice, it is necessary to adapt them to the specifics of the non-profit sector.

Application of these basic principles within the performance of public administration demonstrates a shift from traditional management models to a decentralised model. At the same time, it influences the modernisation processes which necessarily focus on improving the quality of all services provided and further strengthening of the principle of “citizen participation”. In this context, it can be postulated that the pressure of citizens to improve the performance of public administration will continue to grow in the following years. In order for the reform (modernisation) processes to bring the desired results, it is necessary to create certain background and conditions (prerequisites) for changes - this is mainly about achieving a consensus between political and clerical representation, avoiding outflow of highly skilled (experienced) employees to the private sector and creating a suitable atmosphere, e.g. willingness to changes, etc. Without fulfilment of these basic assumptions, any efforts to streamline governance cannot be successful.

REFERENCES

[1] Hendrych, D. (2003) *Správní věda: Teorie veřejné správy*. Praha: ASPI, p. 17.
[2] Máša, M. (1994) *Správní věda: materiál pro distanční stadium*. ESF MU. Brno: Masarykova univerzita, p. 7.
[3] Průcha, P. (2003) *Správní právo.* 5. amended and modified edition. Brno: Masarykova univerzita, p. 140.
[4] Simon, H. A. (1959) *Administrative Behaviour. Study of Decision-making Processes in Administrative Organization*. New York: Free Press.
[5] Merton, R. K. (1940) Bureaucratic Structure and Personality. *Social Forces*, year 17, No. 6, pp. 560–568.
[6] Selznick, P. (1948) Foundations of the Theory of Organization. *Administrative Science Review*, year 13, No. 1, pp. 25–35.
[7] Gouldner, A. W. (1955) Metaphysical Pathos and the Theory of Bureaucracy. *American Political Science Review*, year 49, No. 6, pp. 496–507.
[8] Hughes, O. E. (2003) *Public Management and Administration*. Third Edition. New York: Palgrave MacMillan.
[9] Wilson, W. (1987) The Study of Administration. In: Hyde, A. C. and J. M. Shafritz. *Classics of Public Administration*. Chicago: Dorsey Press, 1987, pp. 10–25.
[10] Keraudren, P. and H. V. Mierlo. (1997) Theory of public administration reform and practical application. In: Coombes, D. and T. Verheijen, eds. *Public Administration Reform: Comparing East and West Experience*. Bratislava: NISPAcee, pp. 29–47.
[11] Waldo, D. (1948, reprint 2006) *The Administrative State. A Study of the Political Theory of American Public Administration*. New York: Ronald Press.
[12] Oakland, J. S. and L. J. Porter (1994). *Cases in Total Quality management*. London: Butterworth-Heinemann.
[13] Cheema, S. G. (2000) Good Governance: A Path to Poverty Eradication. Choices: The Human. *Development Magazine*, year 9, No. 1, pp. 6–7.

[14] Stoker, G. Public-Private Partnerships and Urban Governance. (1998) In: Pierre, J. eds. *Partnership in Urban Governance: European and American Experience*. Basingstoke: Palgrave Macmillan, pp. 34–51.

[15] Atkinson, D. (2002) *Local Government, Local Governance and Sustainable Development: getting the Parameters Right*. Vol. 4. Cape Town: Humena Sciences Research Council.

[16] Abrahamsen, R. (2000) *Disciplining Democracy: Development Discourse and Good Governance in Africa*. New York: Zed Book.

[17] Massey, A. (2007) Multi-level governance: managing global governance in a differentiated political context. In: Fraser-Moleketi, G., eds. *Achievable World: Administration of Global Governance.* Prague: Ministry of the Interior of the Czech Republic, pp. 25–34.

[18] Smith, B. L. *Public Policy and Public Participation: Engaging Citizens and Community in the Development of Public Policy. Public Health Agency of Canada* [online]. [quotation 25. 2. 2019]. Available in: http://www.phac-aspc.gc.ca/canada/regions/atlantic/pdf/pub_policy_partic_e.pdf; p. 23.

[19] Ahrens, J. (2001) Governance, Conditionality and Transformation in Post-socialist Countries. In: Hoen, H. W., eds. *Good Governance in Central and Eastern Europe: The Puzzle of Capitalism by Design.* Cheltenham: Edward Elgar, pp. 54–90.

[20] Austin, D. (2001), Good Governance? *The Round Table*. year 361, No. 1, pp. 497–505.

[21] Doorbos, M. (2001) Good Governance: The Rise and Decline of a Policy Metaphor. *Journal of Development Studies*. year 49, No. 37, pp. 93–108.

[22] Elsenhans, H. (2001) The political Economy of Good Governance. *Journal of Developing Societies*, year 17, No. 2, pp. 33–35.

[23] Weiss, T. G. Governance (2000) Good Governance and Global governance: Conceptual and Actual Challenges. *Third World Quarterly*, year 21, No. 5, pp. 795–820.

[24] Woods, N. (2000), The Challenge of Good Governance for the IMF and World Bank Themselves. *World Development*, year 28, No. 5, pp. 823–841.

[25] Vopálka, V. (2005) *Nový správní řád, zákon č. 500/2004 Sb.* Praha: ASPI, p. 17.

[26] Skulová, S. (2009) Principy dobré správy v judikatuře Nejvyššího správního soudu ČR s akcentem na zásadu řádného odůvodnění. In: Košičiarová, S. Eds. *Rada Európy a verejná správa: zborník príspevkov z česko-slovenskej vedeckej konferencie konanej 21.–22. apríla 2009 v Trnave (projekt VEGA č. 1/0387/08).* Trnava: Typi Universitatis Tyrnaviensis, 2009, 1 CD, pp. 143–157.

MARKET, ORGANIZATION HIERARCHY AND NETWORK FORMS

Aleksandra Cvetković[1]
Darko Milošević[2]
Miroslava Marić[3]

DOI: https://doi.org/10.31410/EMAN.2019.151

Abstract: *The purpose of this article is to analyze literature in the organizational behavior field. Powell (1990) contrast three modes of organization and stress the salient features of each - market, hierarchy, and network. The logic of network forms demonstrates how networks differ from other forms, illustrative examples of network arrangements in craft and high-technology industries, in regional economies, and in formerly vertically integrated fields. The aim is to develop a number of empirical arguments about the circumstances that encourage the growth of networks and allow them to proliferate. The paper concludes with conditions that encourage the growth of network forms of organization.*

Keywords: *Market, Organization hierarchy, Network, Know-how*

1. INTRODUCTION

Literature in this paper followed the fields of international business, technology strategy, industrial relations, organizational sociology, and the new institutional economies. Coase [1] in article on the nature of the firm, conceived firm as a "black box". Williamson and Oliver's [2] define it as a "transaction that involve uncertainty require specific investments"- of money, time or energy that cannot be easily transferred. Transactions are moved out of markets into hierarchy, where inefficiencies of bureaucratic organization preferred to the relatively greater costs of market transactions, for two reasons: bounded rationality and opportunism. According to Powell [3] "out-side boundaries of firms are competitors, while inside managers exercise authority and curb opportunistic behavior".

The view that transactions are distributed at points along a continuum implies that markets are the starting point which other methods evolve. As Moses Finley [4] tells us "only money in the nature of free booty and treasure trove". Williamson remarks "transactions in the middle range are much more common".

For high tech start-ups in the U.S. and craft-based firms in Northern Italy, continuum fails to capture the complex realities of exchange, blinds us by reciprocity and collaboration as alternative governance mechanisms. Goldberg [5] notes that many market exchanges have been replaced by international collaborations.

1 Faculty of Management Zajecar, Park suma Kraljevica, Zajecar, Serbia
2 Università LUM Jean Monnet, Casamassima (BA), Italy
3 Faculty of Management Zajecar, Park suma Kraljevica, Zajecar, Serbia

2. MARKET, ORGANIZATION HIERARCHY, AND NETWORK

Powell [3] aim to identify a coherent set of factors which talk about networks as a distinctive form of coordinating economic activity, then employ these ideas to generate arguments about the frequency, durability, and limitations of networks.

Table 1: Stylized Comparison of Forms of Economic Organization

Key Features	***Forms***		
	Market	***Hierarchy***	***Network***
Normative Basis	Contract-Property Rights	Employment Relationship	Complementary Strengths
Means of Communication	Prices	Low	Relational
Methods of Conflict Resolution	Haggling-resort to courts for enforcement	Administrative flat-Supervision	Norm of reciprocity-Reputational concerns
Degree of Flexibility	High	Low	Medium
Amount of Commitment Among the Parties	Low	Medium to High	Medium to High
Tone or Climate	Precision and/or Suspicion	Formal, bureaucratic	Open-ended, mutual benefits
Actor Preferences or Choices	Independent	Depended	Interdependent
Mixing of Forms	Repeat transactions	Informal organization	Status Hierarchies
	Contracts as hierarchical documents	Market-like features: profit centers, transfer pricing	Multiple Partners Formal rules

Organization, or hierarchy, arises when the boundaries of a firm expand transactions and resource flows that were previously conducted it the marketplace. In hierarchies, communication occurs in the context of the employment contract. Relationships matter and previous interactions shape current ones [3]. The strength of hierarchical organization, is its reliability - its capacity for producing large numbers of goods or services of given quality repeatedly. A hierarchical structure is well-suited for mass production and distribution.

In networks, the preferred option is often one of creating indebtedness and reliance over the long haul [3]. Each approach thus devalues the other: prosperous market traders would be viewed as petty and untrustworthy shysters in networks, while successful participants in networks would be viewed as naive and foolish. These relationships effort to establish and sustain ability to adapt to changing circumstances. As networks evoke, communication and problem solving-is established.

3. ILLUSTRATIVE CASES OF NETWORK FORMS

Powell [3] provide examples of networks from a diversity of industries, involving intricate, multifaceted, durable relationships in which horizontal forms of exchange are paramount. Argument was based on notion that similar patterns of exchange are likely to entail similar behavioral consequences, no matter what the substantive context is. It begins with craft industries, where each product is relatively unique, search procedures are no routine, and the week process

depends to considerable degree on intuition and experimentation (Persow, 1967); Powell discuss book industry where large firm is able to keep top-flight editors' content and gain great financial stake. He concluded that the both spinoff arrangements and the quasi-organizations based on personal networks reflect the fact that editors are located in structurally ambivalent positions.

Powell [3] turn next to discussion of industrial districts, where network move to high technology. Firms locate in an area because of skilled laborers, and an institutional infrastructure [6]. Sabel et al. [7] describe the German textile industry, as an "association of specialists, each with unmatched expertise and flexibility in particular phase or type of production". The Emilian Model presents small Italian firms typical vertically-integrated. Production is conducted through extensive, collaborative subcontracting agreements. A combination of familiar, legislative, ideological, and historical factors buttresses Emilia-Romagna's economic progress. Small firms are able to offer vast array of new products and are able to give shape to new ideas with a speed unimaginable in larger enterprises.

As example of interfirm cooperation which often can be found in Japan, Dore [8] argues that stable trading relationships are a viable alternative to vertical integration. The success of these forms of extended trading networks has two keys: boundaries of the firm, a new constellation of forces recognized as crucial to economic success, and the spread of technologically advanced firms.

3.1. Strategic Alliances and Partnerships

There is widespread evidence, with various new kinds of interfirm agreements, collaborations, and partnerships. Firms are seeking to combine their strengths and overcome weaknesses in collaboration that is much broader and deeper than the typical marketing joint ventures and technology licensing. Large firms include joint ventures, strategic alliances, equity partnerships, collaborative research pacts of large-scale research consortia, reciprocity deals, and satellite organizations. Equity investment - cooperative agreements in order to gain fast access to new technologies or new markets combine direct project financing and varying degrees of ownership, such as research contracts, exclusive licensing agreements, loan and other financial agreements [9].

The larger and more technology-intensive firm invests, rather than purchases. The basic thrust is quite obvious and critical to success is knowing how to make a product and how to make it work. General Motors invest in tech-knowledge, type of artificial intelligence, by noting that "if we purchased the company outright, we would kill the goose that laid the golden egg."

In joint ventures the relationships are multidimensional and long-term. On the push side are technological constraints and on the pull side financial concerns and the advantages of risk reduction. Borys and Jemison [10] suggest that because partners have not previously worked together, they may misperceive one another's actions.

Powell [3] concluded with the case of vertical disaggregation, where networks represent an effort to introduce collaboration into well-established contexts in which trust and cooperation have long been absent. Failures in vertically-integrated firms are an inability, resistance to process innovations and systematic resistance to introduction of new products. Disadvantages of large-scale vertical integration become acute when technological change quickens, product life cycles shorten, and markets become more specialized, to slow response times, and decreased employee satisfaction.

Heightened competition exposed number of serious defects in this system in auto industry, which led to inflexibility. Joint venture activity is extensive between Ford and Mazda, General Motors and Toyota, GM and Volvo, and Chrysler and Mitsubishi. Ownership is also held in tandem. The automakers become more dependent on the technological expertise of the suppliers, pursuing outsourcing strategy to low wage areas.

4. THE ETIOLOGY OF NETWORK FORMS

Many of the arrangements discussed above actually release transaction costs, but in return they provide concrete benefits or intangible assets that are far more valuable. The reduction of uncertainty, fast access to information, reliability, and responsiveness are among the paramount concerns that motivate the participants in exchange networks.

The powerful trading companies such as Mitsui, Mitsubishi and Sumitomo, enables us to understand the circumstances under which network forms arise, as suggested: cooperation over the long run, incentives for learning, open-ended quality of networks, and high feasibility utilizing and enhancing intangible assets as tacit knowledge and technological innovation.

5. RATIONALE FOR NETWORK FORMS

Powell [3] highlights three factors - know-how, the demand for speed and trust as critical components of networks.

Know-how. Intellectual capital, education, training, and experience, cultural production, scientific research, design work, mathematical analysis, computer programming or software development, require little in the way of costly physical resources. Networks are most likely to arise and proliferate in fields in which knowledge and/or skills do not lend themselves to either monopoly control or expropriation by the wealthiest bidder.

The demand for speed. This view suggests fast access to information, flexibility, and responsiveness to changing tastes. Key advantages are ability to disseminate and interpret new information is seen most clearly when networks are contrasted with markets, hierarchies, and when the flow of information is controlled. As information passes through network, it is both freer and richer, new connections and new meanings are generated, debated, and evaluated.

Trust. As examples, craft-based networks and industrial districts suggest that the more homogeneous the group, the greater the trust, hence the easier it is to sustain network-like arrangements. When the diversity of participants increase, trust recedes, and so does the willingness to enter into long-term collaborations.

6. CONCLUSIONS

Number of key issues was suggested for the future research, the durability of networks, distinction between very specific resources and intangible assets that might account for divergent patterns, behavioral differences among markets, hierarchies, and networks etc. When the diversity of participants increase, trust recedes, and so does the willingness to enter into long-term collaborations. So, basic trust, know-how, and demand for speed are critical to make a product and to succeed.

REFERENCES

[1] Coase, R. (1937). The nature of the firm. Economica, 4,386-405.
[2] Williamson, Oliver E. (1975) "Markets and hierarchies: Analysis and antitrust implications". New York: Free Press.
[3] Powell, Walter. „Neither market nor hierarchy." The sociology of organizations: classic, contemporary, and critical readings 315 (2003): 104-117.
[4] Finley, M. (1973). The ancient economy. Berkeley: University of California Press.
[5] Goldberg, V.P. (1980). Relational exchange: Economics and complex contracts. American Behavioral Scientist, 23(3), 337–352
[6] Arthur, B. (1987). Urban systems and historical path-dependence. To appear in Urban systems and infrastructure, R. Herman and J. Ansubel (Eds.). NAS/NAE, forthcoming.
[7] Sabel, Charles F., et al. (1989) „Regional prosperities compared: Massachusetts and Baden-Württemberg in the 1980s." Economy and Society 18.4: 374-404.
[8] Dore, R. (1983). Goodwill and the spirit of market capitalism. British Journal of Sociology, 5459-482.
[9] Doz, Y. (1988). Technology partnerships between larger and smaller firms: Some critical issue, International Studies of Management and Organization, 17(4), 31-57.
[10] Borys, B., & Jemison, D.B. (1989). Hybrid organizations as strategic alliances: Theoretical issues in organizational combinations. Academy of Management Review, 14(2), 234–249

MODELLING THE INFLUENCE OF IT SUPPORT ON SUCCESS AT PUBLIC CALLS FOR PROJECT PROPOSALS

Blaž Rodič[1]

DOI: https://doi.org/10.31410/EMAN.2019.157

Abstract: *Paper presents the study of factors affecting success at public calls for research and development project proposals on a sample of Slovenian small and micro, medium and large companies. First part of research involved gathering the data on company participation in public calls and quantitative analysis of data in order to identify the sample of companies most successful at public R&D calls. Second part of research utilized qualitative methods: interviews with companies in the sample, qualitative analysis of interviews, and formation of a grounded theory and a paradigmatic model, with the goal of identifying the role and impact of IT support and other factors that influence the success of companies in public tenders for co-financing of R&D projects. We have identified relevant IT support related factors and the additional factors of human resources. In the process we have developed a novel multicriteria model for evaluation of performance at public calls, which takes into account the funds acquired, the number of acquired projects, the ratio of public resources and funds from market activities, the number of employees. The results of our research are applicable in the theory of project management, sociological research on interplay of IT and society and have a potential impact in the design and management of public calls for project proposals and the approach to public calls for project proposals in companies.*

Keywords: *project management, EU funds, project proposals, public calls, success factors, IT support.*

1. INTRODUCTION

Public calls for research and development project proposals present an important source of co-financing for development, especially for small and micro enterprises. However, the same companies are held back from accessing the funds by fundamental problems - a lack of trained personnel capable of preparing and managing a complex project proposal [1] or insufficient spare time to prepare a proposal. Thus, some companies do not apply at calls demanding detailed project proposals, or the quality of their applications is poor. On the other hand, modern software solutions for project management facilitate planning and implementing projects, and reduce the amount of work. The baseline problem that our research aims to impact is the low administrative absorption capacity of companies in drawing EU funds from public tenders, i.e. low rate of success of companies at EU funded calls for project proposal [2] in [3].

On the side of applicants (i.e. companies), issues with methodology, skills and IT support of project management affect both the development of suitable project proposals and the management of co-financed projects. Mrak and Wostner argue that „the administrative burdens of applicant must be proportionate to the expected benefits" [4] in [3, p. 190], which means that the difficulty of the tender documentation and the application process should increase with the size of project funds, as they reflect project difficulty and complexity.

To improve understanding of these issues we have researched how companies in Slovenia carry out project planning in the role of applicants at EU funded public calls for proposals and identified the properties of information support and some other factors that influence the success of companies in such tenders through their practices and the use of sociological theories.

[1] Faculty of Information Studies, Ljubljanska cesta 31A, Novo mesto, Slovenia

2. METHODOLOGY

Our research was divided into two parts:

- quantitative research on the database of companies and their co-financing from EU funded calls, with the goal of identifying companies successful at public R&D calls, and
- qualitative research, with the goal of identifying factors influencing success at calls, with focus on IT support.

2.1. Quantitative research

First part of research involved gathering the data on project proposals with lead Slovenian company partners selected in European and national (Slovenia) public calls from the beginning of the previous EU financing perspective in 2007. Quantitative analysis of data was done to analyze the participation of companies at public calls and select a sample of companies most successful at public R&D calls for qualitative research.

The data contained 1254 selected successful project proposals by 704 different companies funded from 31 different public calls for proposals dating from 2007 to 2016. As most of the work on proposal development and managing projects preparation and project management work is performed by leading project partners, we have selected only EU projects where a privately-owned company registered in Slovenia was the lead partner. Population was then divided into three groups: small and micro; medium-sized; and large companies according to the EU guidelines [5] in order to compare only companies with similar human and financial resources, avoid the domination of large companies in the sample and make sure the sample also contained representative small, micro and medium companies, which are the backbone of Europe's economy, representing 99% of all businesses in the EU [6]. Data was then grouped by company to generate our final version of the database, that included a list of:
companies name, address, VAT number,

- ownership structure,
- total number of successful projects proposals,
- total amount of financing acquired at public calls,
- average sales revenue over the last 2 years, and
- number of employees.

Our main method in sample selection was a novel multicriteria model for identification of public R&D tender applicants' success, which takes into account the total funds acquired, the number of financed projects, the ratio of public resources and funds from market activities, the number of employees, and allows us to identify successful applicants. The multicriteria model was developed using an influence diagram [7] to describe the structure of criteria (Figure 1) and the AHP method [8], [9] to determine the weights of the criteria. The model was implemented in the form of a formula (1) in the spreadsheet used to evaluate and rank the companies.

The novel multicriteria model for company ranking is represented here as utility function *F(k).*

$$F(k) = K_{ss} * W_{SS} + K_{OZ} * W_{OZ} + K_{RD} * W_{RD} \quad (1)$$

The elements of Equation (1) are:

K(x)- criterion (all normalized to preferential scale 0..100 using the analyzed sample),
W(x)- criterion weight (determined by the AHP method),

Criteria:

- K_{SS} – cumulative co-financing per company - the most important criterion, 60% of total weight,
- K_{OZ} – no. of projects per employee - second most important criterion (1/2 importance of the most important criterion), 30% of total weight,
  ! exact number of employees was not available for all companies, and we used the approximation given by national business registry (9 or 49 for micro and small companies, 249 for mid-sized companies, 249 or 500 for large companies)
- K_{RD} – ratio between co-financing from public tenders and sales revenue - the least important criterion (1/6 of the importance of the most important criterion), 10% of total weight.

The data was ranked separately by small and micro companies, medium companies, and large companies. Four best rated companies from each category were selected as the sample for qualitative research, i.e. semi-structured interviews.

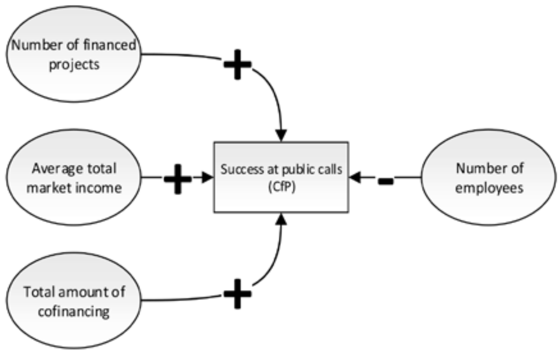


Figure 1: Influence diagram for success at public calls

2.2. Qualitative research

Second part of research utilized qualitative methods: semi-structured interviews [10] with companies in the sample (four best rated companies from each size category), qualitative analysis of interviews, and formation of a grounded theory and a paradigmatic model [11], with the goal of identifying the role and impact of IT support and other factors that influence the success of companies in public tenders for co-financing of R&D projects.

The content of interviews was focused on how companies in the role of the applicant implement project generation, selection, planning and preparation of project proposals for public calls, the IT support (types of software) and IT training provided by the company for this purpose, and the attitude of employees towards software provided.
The process of qualitative analysis of the interview transcripts was divided into six steps: (1) arranging the material, (2) determining the coding units, (3) open coding, (4) selecting and defining the relevant concepts and categories, (5) relational coding and (6) forming the final theoretical formulation (for more information on methodology see [12]: p. 75).

The main goal of the qualitative content analysis was the creation of concepts, hypotheses and explanations, that is, the grounded theoretical formulation, which is read as a narrative about the use of project management software and its impact on the performance of companies. We

formed the grounded theory via „selectively encoding" [13] the categories formed in the process of qualitative content analysis by linking them to each other and displaying the relations between them within the paradigmatic model scheme. The selective coding was carried out with reference to the research questions.

3. RESULTS

3.1. Quantitative research

The scores of companies obtained with the multicriteria model () were calculated on a scale , where the value of 100 represents the best possible score. The following figures present an overview of the results. All figures show the company score (*F(k)*) relative to company rank. Rank (x axis) is shown with logarithmic scale to display the differences between top ranking companies more clearly. Only the first 100 companies are shown (417 small and micro companies, 106 mid-sized, and 76 large companies were in the sample).

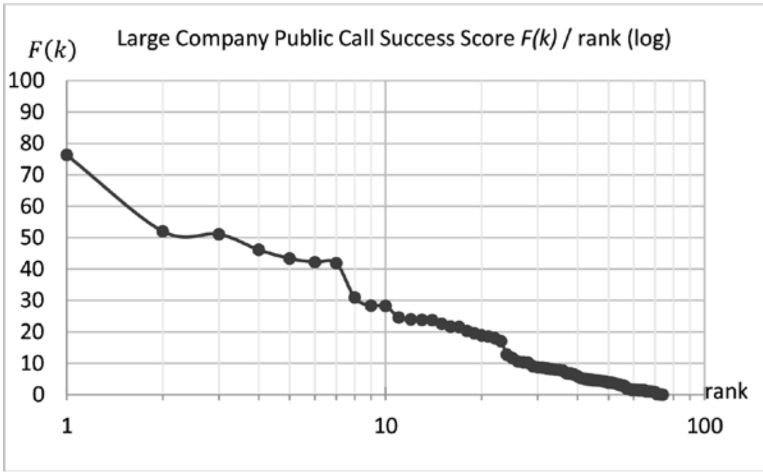


Figure 2: Large Company Public Call Success Score

In Figure 2 we can observe that the most successful company is an outlier (score=76.32, 24.3 more points than the next best), followed by a group of six companies with score between 52.05 and 41.88, while most of the companies trail behind in an almost linear sequence with scores under 30 (>11.88 lower than the best performing group). There seem to be at least two groups of companies evident in the figure (plus the outlier), and we can assume that the best performing groups are doing something differently than most companies and are therefore of interest for our qualitative research.

A very similar relationship of score and rank is shown for middle sized companies in Figure 3, with one outlier with score of 78.23 and two companies with score 61.56 (16,67 less than the best mid-sized company) and 61.04 outperforming the others (score 43.47 or less, more than 17,57 points below the best group) at public calls.

Rather different results for best performing companies are shown for the group of small and micro companies in Figure 4. The best performing small or micro company has only 57.28 points, 20.95 points less than the best performing mid-sized company and 19,04 points less than the best performing large company. It is apparent that there are significant differences between best performing small and micro

companies and best performing medium and large companies. However, more small and micro companies seem to be obtaining public call funds, as the small or micro company ranked 100 on the list scored 7.56 points, compared to 0.55 for the 100th mid-sized company and 0.01 points for the last, 76th large company.

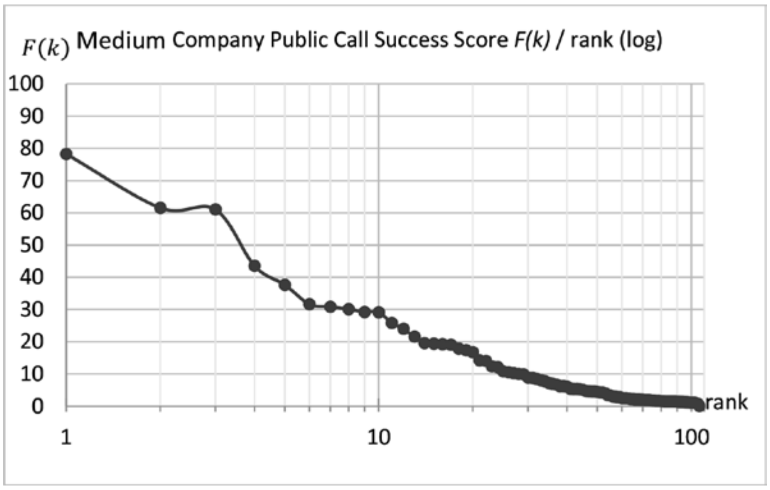


Figure 3: Medium Company Public Call Success Score

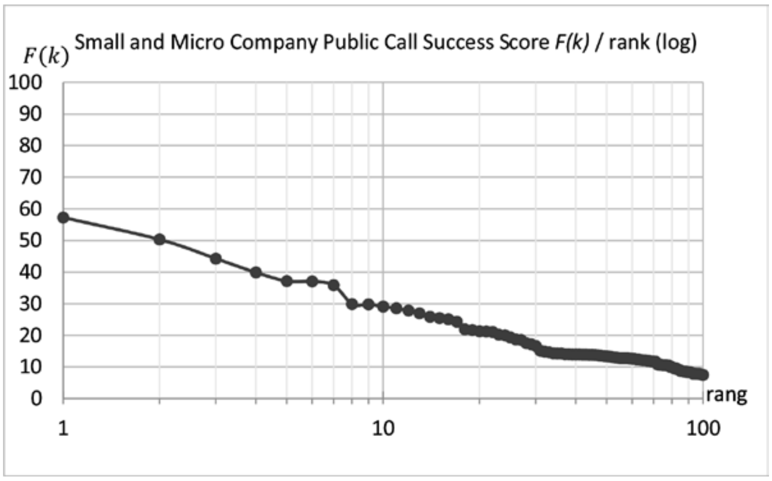


Figure 4: Small and Micro Company Public Call Success Score

To supplement the comparison, in examined time period (2007-2016) the best performing large company has obtained a total of ~9M€ funding (~10% of average annual revenue) for 7 projects, best mid-sized company ~6M€ (~50% of average annual revenue) for 12 projects, and best performing small or micro company ~6M€ (~10% of average annual revenue) for 9 projects (~60% of average annual revenue).

3.2. Qualitative research

The results of qualitative research contained in the paradigmatic model show that the impact of information support on the project organization of work in companies in successful participation in national and community calls can depend on:

- the degree of structure in work organization,
- the qualifications of employees in terms of exploiting the opportunities offered by the specialized project management software,

- employee attitude towards specialized software and, last but not least, the way of using the software. Companies indirectly influence the attitude of employees towards the software and its effective use through their software training methods.

We found that in all interviewed companies, regardless of size:
- they use separate software for administrative management and cost management,
- size, number of projects influences the need for software,
- they evaluate the ISARR system (national project reporting) negatively,
- prefer electronic (web based) call applications and project reporting,
- are motivated to use project management software.

Regardless of the size of the company, users are mostly in favor of using software for proposal work, and software is considered indispensable when preparing a project proposal. Specialized (purchased or custom made) software is seen as reliable while adapted general purpose software (mostly Open/Libre Office or Microsoft Office) is seen as unreliable. We find that in large companies the attitude of employees towards software is influenced by regular updates and user-friendly interface.

4. CONCLUSION

By comparing the practices of the most successful small and micro, medium and large companies, we have identified the additional (to IT support) relevant factor of human resources.

Via additional interviews with intermediary (financing) body representatives we have identified the mismatch of project impact estimation between the recipients of funding (companies) and financing control.

To aid in sample selection we developed a novel multicriteria model for identification of public R&D tender applicants' success, which takes into account the funds acquired, the number of acquired projects, the ratio of public resources and funds from market activities, the number of employees, and allows us to identify successful applicants. The model allowed us to select a relevant sample of successful companies and can be used to determine the public call financing potential of a company.

The results are useful both in the practice of planning public tenders and in preparing project proposals for applying for public tenders and project management. They also serve as an identifier of problems in systemic planning and tendering on the side of the managing authority and the intermediate body.

BIBLIOGRAPHY

[1] B. Usenik, "Pomanjkanje kadrov stiska gospodarsko rast," 17 5 2007. [Online]. Available: http://www.finance.si/182039/Pomanjkanje-kadrov-stiska-gospodarsko-rast?cctest&. [Accessed 4 4 2016].
[2] L. Boot, J. M. de Vet and F. Feekes, *Absorption capacity for Structural Funds in the regions of Slovenia, Final Report,* Rotterdam: Rotterdam: NEI.
[3] P. Wostner, *Potrebnost in uspešnost kohezijske politike EU, doktorska disertacija,* Ljubljana, 2009.

[4] M. Mrak and P. Wostner, "Absorpcijska sposobnost Republike Slovenije za črpanje sredstev EU," *IB Revija Revija za strokovna in metodološka vprašanja trajnostnega razvoja,* pp. 4-21, 2005.
[5] European Commission, "The revised User Guide to the SME definition," 2015. [Online]. Available: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en. [Accessed 12 3 2019].
[6] E. Commission, "Entrepreneurship and Small and medium-sized enterprises (SMEs)," EC, [Online]. Available: https://ec.europa.eu/growth/smes_en. [Accessed 1 3 2019].
[7] F. Jensen, Bayesian Networks and Decision Graphs, New York, New York: Springer-Verlag, 2001.
[8] T. L. Saaty, "A scaling method for priorities in hierarchical structures," *Journal of Mathematical Psychology,* no. 15, p. 234–281, 1977.
[9] T. L. Saaty and K. Peniwati, Group Decision Making: Drawing out and Reconciling Differences, Pittsburgh, Pennsylvania: RWS Publications, 2008.
[10] R. Edwards and J. Holland, What is qualitative interviewing? Bloomsbury Academic, 2013, pp. 2-3.
[11] E. Fischbein, "Paradigmatic Models," in *Intuition in Science and Mathematics*, vol. 5, Dordrecht, Springer, 2002.
[12] J. Saldaña, The Coding Manual for Qualitative Researchers, 3rd ed., SAGE Publications Ltd., 2015.
[13] B. Chametzky, "Coding in Classic Grounded Theory: I've Done an Interview; Now What?" *Sociology Mind,* vol. 6, no. 4, 2016.
[14] NEI Regional and Urban Development, "NEI 2002a Key indicators for Candidate Countries to Effectively Manage the Structural Funds," EC DG REGIO/DG ENLARGEMENT, Rotterdam, 2002.
[15] B. Mesec, Uvod v kvalitativno raziskovanje v socialnem delu, Ljubljana: Faculty of Social Work, 1998.

PROCJENA EFIKASNOSTI VISOKOG OBRAZOVANJA U EU-28

EFFICIENCY OF HIGHER EDUCATION IN THE EU-28: A COMPARATIVE ASSESSMENT

Maja Mihaljević Kosor[1]
Ines Šimleša

DOI: https://doi.org/10.31410/EMAN.2019.165

Sadržaj: *Glavni cilj ovog rada je istraživanje primjene koncepta efikasnosti u visokom obrazovanju i procjena efikasnosti javnog financiranja obrazovanja u EU-28. Visoko obrazovanje ima značajan utjecaj na razvoj društva i gospodarstva. Više od 19 milijuna studenata u 2016. godini pohađa nastavu na nekoj od visokoškolskih institucija u EU-28 i stoga je iznimno važno proučiti efikasnost tog sustava. U ovom istraživanju primijenjena je metoda omeđivanja podataka – Data Envelopment Analysis (DEA). DEA je neparametrijska metoda s linearnim programiranjem koja omogućava korištenje višestrukih inputa i outputa u procjeni efikasnosti. Na taj se način može rangirati zemlje prema ostvarenom koeficijentu efikasnosti visokog obrazovanja. Istraživanje je u ovom radu provedeno na panelu od 28 zemalja Europske Unije koristeći posljednje dostupne podatke za tri inputa (broj studenata, akademsko osoblje i javne izdatke na visoko obrazovanje po studentu) i dva outputa (broj diplomiranih studenata i zapošljivost). Pretpostavka je bila da je model izlazno usmjeren i s varijabilnim prinosima na opseg. Rezultati su pokazali da zemlje Europske Unije ostvaruju visoke koeficijente efikasnosti s 15 zemalja koje su ostvarile najviši koeficijent. Istraživanje je pokazalo i da zemlje koje više izdvajaju za visoko školstvo nemaju nužno viši koeficijent efikasnosti.*

Ključne reči: *efikasnost, analiza omeđivanja podataka, visoko obrazovanje, javna potrošnja, EU-28*

Abstract: *The main focus of this research was to address the concept of efficiency and its application to higher education and to, furthermore, assess the efficiency of public spending on higher education in the EU-28. Higher education plays a significant role in a development of a society and its economy. With over 19 million students (in 2016) studying at various higher education institutions across the EU, it has become increasingly important to examine the efficiency of the system. In this research the authors applied Data Envelopment Analysis (DEA) which is a non-parametric method that uses linear programming and combines multiple inputs and multiple outputs in calculating efficiency. DEA assigns weights to inputs and outputs and enables us to rank the countries by their efficiency in higher education. Using the latest available data, the model considered three inputs in higher education (number of students enrolled, academic staff and public expenditure on higher education per student) and two outputs (number of graduates and employability) for all EU countries, using output-oriented, variable returns to scale specification. The results demonstrated that the countries of the European Union achieve high technical efficiency with 15 countries obtaining the highest score. This research also revealed that the countries with the highest spending per student are often not amongst the aforementioned most efficient countries.*

Keywords: *efficiency, Data Envelopment Analysis, higher education, public spending, EU-28*

[1] Sveučilište u Splitu, Ekonomski Fakultet, Cvite Fiskovića 5, 21000 Split, Republika Hrvatska

1. UVOD

U ovom radu će se analizirati trenutno stanje u visokom školstvu u Europskoj Uniji, te će se posebno analizirati i uloga javnih izdataka u financiranju visokog školstva država članica Europske Unije. Visoko školstvo, odnosno tercijarni stupanj obrazovanja slijedi nakon sekundarnog (srednja škola) te ima ključnu ulogu u društvu. Visoko školstvo zahtijeva specijalizirano akademsko osoblje i ‚distribucija specijalizacije varira više u različitim institucijama' [1]. Predviđanja od strane ekonomista navode kako će u budućnosti rasti potražnja za visokoobrazovanim ljudima zbog tehnološkog napretka te kako će se sve više tražiti inovativna i kreativna radna snaga koja ima sposobnost efikasno koristiti resurse. Obzirom na oskudne javne resurse u financiranju javnog visokoškolskog obrazovanja glavni problem koji se obrađuje je pitanje efikasnosti državne potrošnje. Naime, nekolicina provedenih studija je pokazala da obrazovanje pozitivno korelira s ekonomskim rastom, produktivnošću i socijalnom kohezijom.

Javna potrošnja za visokoškolsko obrazovanje je izuzetno bitna s aspekta gospodarskog rasta, socijalne kohezije i općeg napretka društva i ekonomije u cijelini. Prema podacima (koji su dostupni kod [2]) jasno su vidljive razlike i varijacije među zemljama kod izdvajanja za visoko školstvo. Prosjek EU je iznosio 1,28% GDP-a u 2013. godini, sličan rezultat je bio i u 2014. godini. Po potrošnji prednjači Danska sa 2,35% GDP-a, dok su odmah iza Finska te Švedska s otprilike 2% GDP-a. Daleko najmanja izdvajanja ima Luksemburg sa 0,51% GDP-a, Rumunjska sa 0,68% i vidljivim silaznim trendom u promatranom razdoblju, Bugarska koja je u 2014. godini došla na 0,70% GDP-a, te Češka i Italija sa 0,80% GDP-a. Mađarska je pala sa 0,90% na 0,77% od 2013. do 2014. godine, a Portugal je na razini od 0,91%. Oko 1% GDP-a za visoko školstvo izdvajaju Španjolska i Irska (u 2014.), Slovačka te Poljska sa 1,18%. Gledajući u ove podatke treba imati u vidu da Luksemburg, iako izdvaja najmanje, ima veći GDP i GDP per capita, od primjerice Rumunjske i Bugarske. Ovo su samo relativni podaci koji pokazuju udio u GDP-u države, ne i apsolutne brojke.

Njemačka prednjači sa brojem studenata, te od 2013. godine ima konstantno uzlazan trend pa je tako u 2016. godini imala 2,75 milijuna studenata. Zemlje s preko 1,5 milijuna studenata su Španjolska, Francuska i Italija, dok je Poljska jedina preostala zemlja s preko 1,2 milijuna studenata (nešto manje od toga ima u 2016. godini, ali je odstupanje zanemarivo). Hrvatska ima oko 150.000 studenata, a blizu nje su Slovačka i Litva. Od ukupnog broja studenata u ustanovama visokog školstva, otprilike 4,7 milijuna studenata je završilo studij u 2015. godini prema podacima sta Eurostat-a [2]. U Europskoj Uniji je 2015. godine bilo oko 1,4 milijuna ljudi koji su se vodili pod akademsko osoblje u ustanovama visokog školstva. Više od 25% ih je bilo zaposleno u Njemačkoj i po 10% u Španjolskoj i UK.

2. EFIKASNOST U VISOKOM OBRAZOVANJU

Efikasnost se u ekonomskoj znanosti tradicionalno prikazuje pomoću Pareto optimalnosti. Gospodarstvo je u Pareto optimalnoj poziciji kada ne može poboljšati položaj jednog pojedinca bez da se pogorša položaj drugoga. Temeljna objašnjenja efikasnosti mogu se naći kod [3] koji je razlikovao tri različite efikasnosti. Cjelokupnu ekonomsku efikasnost je sveo na dvije - tehničku i alokativna. S druge strane, [4] su proizvodnu efikasnost sveli na dvije komponente: tehničku i cjenovnu. [5] je postavila argument vezan uz alokativnu efikasnost tvrdeći da je njena bit ‚pogoditi pravu kombinaciju obrazovanja'. Slično njoj, [6] također definira alokativnu efikasnost i uspoređuje granične troškove i koristi za društvo, a ne samo prihode i troškove. Što se tiče primjene koncepata efikasnosti u visokom obrazovanju detaljnija analiza se može naći kod [7].

Metoda koja se najčešće koristi pri izračunu efikasnosti nekih jedinica je metoda omeđivanja podataka (eng. Data Envelopment Analysis, u nastavku DEA). DEA-u su razvili Charnes, Cooper i Rhodes 1978. godine kako bi mjerili relativnu efikasnost i produktivnost reprezentativnih jedinica (eng. decision making unit, u daljnjem tekstu DMU) koje se služe istim inputima i outputima [8]. DEA je metoda koja nije statistička i parametrijska već koristi linearno programiranje te dodaje pondere inputima i outputima koji se koriste, te je odnos ponderiranih inputa i outputa maksimiziran za svaku opservaciju. Efikasnost svake jedinice je odnos ponderiranih outputa i inputa, a ponderi nisu unaprijed zadani već ih DEA sama računa. Na taj način se dobije rezultat u kojem se prikazuju jedinice koje su najefikasnije u odnosu na sve ostale jedinice koje su uključene u model. DEA pruža nekoliko prednosti, jedna od njih je da se bihevioralne pretpostavke ne uključuju u model (minimiziranje troškova ili maksimiziranje profita); a druga je da nije potrebno znati cijene inputa i outputa (koje je u visokom obrazovanju ionako teško kvantificirati) [9]. [7] također sugerira da je metoda pogodna za korištenje kod izračuna efikasnosti u visokom školstvu jer je moguće koristiti više inputa i više outputa. Istraživanje provedeno o korištenju DEA metode od 1978. do 2016. je pokazalo da je došlo do ‚eksponencijalnog' rasta korištenja ove metode od kada je razvijena [10]. U obrazovanju DEA se najčešće koristi za procjenu efikasnosti obrazovnih ustanova u jednoj ili nekoliko zemalja kao npr. u [11] za Australiju, [12] za Englesku, [13] za Portugal i [14] za Grčku.

Agasisti je proveo istraživanje o efikasnosti potrošnje na ustanove viskog obrazovanja u određenim Europskim zemljama koristeći se DEA metodom - u [15]. Četiri inputa u tom istraživanju bili su: izdavanja (javna i privatna) za ustanove visokog obrazovanja kao postotak GDP-a, broj upisanih studenata, odnos studenata i akademskog osoblja. Četiri outputa kojima se služio su: postotak stanovništva koji je dostigao tercijarni stupanj obrazovanja, broj diplomiranih studenata kao postotak ukupnog stanovništva, stopa zaposlenosti i broj stranih studenata kao postotak od ukupnog broja studenata. Ovim istraživanjem došao je do rezultata da su razlike među zemljama jasno izražene. Glavni zaključak je da visoki javni izdaci ‚vode ka boljim rezultatima što se efikasnosti tiče, ali samo ako su usmjerena direktno prema institucijama' [15]. Agasisti u svome istraživanju nije uključio Hrvatsku, ali istraživanja koja su se odnosila na Hrvatsku proveli su [16], kao i [17], a obje analize su promatrale tehničku efikasnost obrazovnih ustanova u Hrvatskoj (potonji rad je uključivao i Sloveniju), međutim, potrebno je naglasiti da je [16] promatrao sve razine obrazovanja, a ne samo tercijarnu. Autori [17] su testirali tri modela i došli do poražavajućih rezultata što se Hrvatske tiče. Prema ovom istraživanju, Hrvatska, unatoč visokim javnim izdacima na visoko obrazovanje, ne postiže rezultate kakvi se očekuju.

3. PROCJENA EFIKASNOSTI

Vodeći se teorijom i dostupnom literaturom, kako bi se pravilno analizirala tehnička efikasnost metodom DEA potrebno je odrediti inpute i outpute koji se koriste u istraživanju. Istraživanje je u ovom radu provedeno na panelu od 28 zemalja Europske Unije koristeći posljednje dostupne podatke Eurostata za tri inputa (broj studenata, akademsko osoblje i javne izdatke na visoko obrazovanje po studentu) i dva outputa (broj diplomiranih studenata i zapošljivost). Podaci su se odnose na 2016. godinu i prikazani su u Tablici 1. Pretpostavka je bila da je model izlazno usmjeren i s varijabilnim prinosima na opseg. Za potrebe ovog istraživanja u obzir su uzete razine obrazovanja ISCED 5-8.

Tablica 1: Inputi i outputi korišteni u analizi

	NAZIV	**OPIS**
input 1	broj studenata	ukupan broj studenata upisan na jednu od razina studija (ISCED 5 - 8) u javnim institucijama za visoko obrazovanje u promatranoj godini
input 2	akademsko osoblje	ukupan broj nastavnog i akademskog osoblja koji predaje u svim institucijama za visoko obrazovanje u promatranoj godini
input 3	javni izdaci na visoko školstvo po studentu (u EUR)	javni izdaci na javne institucije za visoko obrazovanje (ISCED 5- 8) podijeljeni sa ukupnim brojem studenata u promatranoj godini
output 1	broj diplomiranih studenata	broj studenata koji je diplomirao sa jedne od razina studija (ISCED 5 - 8) u promatranoj godini
output 2	zapošljivost	broj zaposlenih ljudi koji su završili jednu od razina studija (ISCED 5 - 8) i imaju između 20 i 34 godine podijeljen sa ukupnim brojem ljudi koji su završili jednu od razina studija (ISCED 5 - 8) i imaju između 20 i 34 godine

Kako bi lakše interpretirali rezultate, zemlje u tablici 2 su podijeljene u četiri kvadranta sukladno razini efikasnosti koju su ostvarile (razina od 0-100). Prvi kvadrant predstavljaju zemlje s najvišim izračunatim koeficijentom tehničke efikasnosti, zatim one zemlje koje su se našle na razini između 90 i 100. Treći kvadrant predstavljaju zemlje s tehničkom efikasnošću između 70 i 80, a posljednji, četvrti kvadrant, su zemlje koje su na razini efikasnosti manjoj od 70.

Tablica 2: Tehnička efikasnost zemalja EU-28 u 2016. godini

kvadrant 1		*kvadrant 2*	
100	Belgija	Nizozemska	97,45
100	Bugarska	Švedska	96,82
100	Češka	Austrija	96,02
100	Njemačka	Cipar	93,61
100	Estonija	Mađarska	93,44
100	Irska	Slovačka	92,24
100	Grčka	Slovenija	91,23
100	Francuska	Danska	90,76
100	Latvija		
100	Litva		
100	Luksemburg		
100	Malta		
100	Poljska		
100	Rumunjska		
100	Velika Britanija		
77,42	Italija	Portugal	89,95
		Španjolska	88,97
		Hrvatska	86,86
		Finska	85,46
kvadrant 4		*kvadrant 3*	

efikasnost

efikasnost

Petnaest zemalja u ovom modelu je potpuno efikasno – ostvaruju koeficijent tehničke efikasnosti jednak 100. U drugom kvadrantu se nalazi osam zemalja EU koje ostvaruju nešto manju efikasnost u rasponu od 90,76-97,45. Hrvatska se nalazi u trećem kvadrantu s koeficijentom tehničke efikasnosti 86,86. Zemlja s najnižim koeficijentom je Italija koja se nalazi u četvrtom kvadrantu. Zemlje koje su postigle maksimalni tehnički koeficijent nisu nužno među zemljama koje su ulagale najviše. Primjerice, Bugarska, Grčka, Rumunjska, Latvija, Litva i Poljska sve izdvajaju manje od 5.000 EUR po studentu. Zemlje poput Švedske, Finske, Danske i Austrije, koje izdvajaju mnogostruko više od ovih zemalja, premda su postigle zavidan rezultat, nisu maksimalno efikasne.

4. ZAKLJUČAK

Više od 19 milijuna studenata u 2016. godini pohađa nastavu na nekoj od visokoškolskih institucija u EU-28 i stoga je iznimno važno proučiti efikasnost tog sustava. Rezultati istraživanja su pokazali da je javno visoko školstvo zemalja Europske Unije visoko efikasno u transformaciji inputa u outpute. Zemlje koje više izdvajaju za visoko školstvo nemaju nužno viši koeficijent efikasnosti. Bitno je naglasiti da je rezultate ove analize potrebno tumačiti s oprezom jer DEA ima neke nedostatke. DEA uspoređuje samo jedinice koje su uključene u promatrani model tj. relativno. Također, problem u analizi može predstavljati i mali broj DMU, iako su se u ovom istraživanju testirale zemlje Europske Unije pa ne smatramo to preprekom u analizi. Moguće je i da je izostavljen bitan output (u obzir nisu uzete ocjene diplomanata, istraživačka djelatnost zaposlenih i sl.), što također može utjecati na rezultate istraživanja. Dobivene rezultate je, stoga, potrebno uzeti s rezervom.

LITERATURA

[1] Thanassoulis, E., De Witte, K., Johnes, J., Johnes, G., Karagiannis, G. & Portela, S. C. 2016. Application of Data Envelopment Analysis in Education. In: Zhu, J. ed. *Data Envelopment Analysis*. New York: Springer Science+Business Media. pp. 367 – 438.

[2] Eurostat. *Tertiary education statistics.* 2018a. [online] raspoloživo na: http://ec.europa.eu/eurostat/statisticsexplained/index.php/Tertiary_education_statistics#Graduates

[3] Farrell, M. 1957. The Measurement of Productive Efficiency. *Journal of the Royal Statistical Society (Series A)*, Vol. 120 (3), pp. 253 – 281.

[4] Devine, P., Lee, N., Jones, R. & Tyson, W. 1985. *An Introduction to Industrial Economics.* London: Unwin Hyman.

[5] Hoxby, C. 1996. Are Efficiency and Equity in School Finance Substitutes or Complements? Journal of Economic Perspectives, Vol. 10 (4), pp. 51 – 72.

[6] Barr, N. 2004. *The economics of the welfare state (4th edition)*. Oxford: Oxford University Press.

[7] Mihaljević Kosor, M. 2013. Efficiency Measurement in Higher Education: Concepts, Methods and Perspective. *Procedia – Social and Behavioral Sciences journal,* Vol. 106, pp. 1031 – 1038.

[8] Charnes A., Cooper W.W, Rhodes E. (1978): Measuring the efficiency of decision making units*, European Journal of Operational Research, Vol. 2, No. 6*, str. 429-444

[9] Johnes, J. 2006. Data Envelopment Analysis and its Application to the Measurement of Efficiency in Higher Education. Economics of Education Review, Vol. 25 (3). pp. 273 – 88.

[10] Emrouznejad, A. & Yang, G-l. 2017. *A survey and Analysis of the First 40 Years of Scholarly Literature in DEA: 1978 – 2016.* Socio-Economic Planning Sciences.
[11] Abbot, M. & Doucouliagos, C. 2003. The efficiency of Australian universities: a data envelopment analysis. Economics of Education Review, Vol. 22, pp. 89 – 97.
[12] Thanassoulis E., Kortelainen M., Johnes G., Johnes J. (2011.): Costs and efficiency of higher education institutions in England: a DEA analysis, Journal of the Operational Research Society (2011) 62, str. 1282–1297
[13] Afonso, A. & Santos M. 2005. Students and Teachers: A DEA Approach to the Relative Efficiency of Portuguese Public Universities. Working Paper No. 07/2005/DE/CISEP. *ISEG – UTL Economics.*
[14] Katharaki, M. & Katharakis, G. 2010. A comparative assessment of Greek universities' efficiency using quantitative analysis. *International Journal of Educational Research,* Vol 49., pp. 115 – 128.
[15] Agasisti, T., 2011. Performances and spending efficiency in higher education: a European comparison through non-parametric approaches. *Education Economics,* Vol. 19 (2), pp. 199 – 224.
[16] Sopek, P. 2011. Efficiency of public expenditure on education in Croatia. *Newsletter.* Institute of Public Finance.
[17] Aristovnik, A. & Obadić, A. 2011. *The funding and efficiency of higher education in Croatia and Slovenia: a non-parametric comparison.* MPRA, Paper No. 31466.

AUDITING INTEGRITY
– THROUGH CHALLENGE TO ADDED VALUE

Tamara Stojanović[1]

DOI: https://doi.org/10.31410/EMAN.2019.171

Abstract: *The aim of this paper is to explain the essence and significance of integrity as an element of organizational culture (i.e. control/internal environment), but also the issues of auditing/assessment of integrity as ‚soft' control. Since many academic and professional researches and case studies has shown that organizational integrity, or the lack of it, has multiple effects on the quality of overall corporate governance, including the integrity of financial reporting, internal control systems and risk management, it is not surprising that legislation and auditing standards have introduced the obligation of assessment and reporting on the control environment/organizational culture, including the ethics, integrity and tone at the top.*

Considering the mission of auditing profession (especially internal auditing), the first prerequisite in this context is to define ‚integrity' because this definition represents the criterion for its effective assessment. However, the lack of general consensus on integrity definition is just one of many challenges auditors are facing. This paper shows that regular assessments of control environment and its elements, including the integrity, do contribute to its empowerment. Likewise, strong control environment, i.e. organizational culture, by itself, provides many different advantages resulting in overall business performance. This paper suggests that integrity carries real value, just like knowledge, technology, human, physical and social capital. Therefore, there are no formal controls that could replace or compensate for the lack of organizational integrity and auditing the integrity may create real added value.

Keywords: *Integrity, ethics, tone at the top, control environment (organizational culture), internal auditing, added value*

1. INTRODUCTION

The interest in ethics and integrity has significantly increased in last decades as it became clear how CEOs and other senior managers has contributed to huge financial scandals. The common trait of all these cases relates to the lack of integrity and unethical behavior of top management and entrepreneurs [52], but also experts – accountants, lawyers, bankers [53]. The fact that these scandals still go on, despite numerous actions taken to repress them, proves that the prevailing paradigm of financial economy needs to be transformed and redefined. This particularly refers to the definition of *integrity* so that academics and practitioners could more efficiently identify real causes of financial scandals in order to improve ways of doing business. Moreover, it seems that *integrity* can be seen as production factor equally important as knowledge, technology, entrepreneurship, human, physical and social capital [4].

Although the author tends to isolate the concept of *integrity* for the purpose of this research, it is not possible, nor in theory or in practice, to look at the integrity solely and analyze it separately from the concepts of ethics and tone at the top. *Integrity*, together with ethics and tone at the top, is not something that business organizations can disregard as they represent, formally and in essence, the elements of organizational culture, i.e. control/internal environment, and consequently, the integral parts of whole internal control system [1, 2], risk management process [3] and corporate governance.

[1] University of Banja Luka, Faculty of Agriculture, Bosnia & Herzegovina

Many authors have struggled to define integrity (e.g. [5]; [6]; [8]; [9]; [4]; [7]). Some of them searched for and highlighted negative consequences of unethical behavior (see: [15]; [10]; [11]; [12]; [13]; [14]; [16]), while others managed even to identify a positive arguments in its favor (see e.g. [54]; [55]; [46]). Besides the researches dealing directly with the consequences of ethical or unethical behavior, many authors have approached this problem indirectly via the effects of corporate culture (e.g. [28]; [31]; [56]; [57]; [58]; [34]) and corporate social responsibility ([30]; [32]; [33]) on business performance indicating positive correlation between them. So far, there were no formal, long-term, empirical studies covering the influence of integrity on employees' performance. In 2014, Warner and Jensen have started a wide-scale empirical tests that will last for years and hopefully throw some light on this issue.

Although corporations, all over the world, have developed different approaches to embed ethics and integrity into organizational culture, researches have shown that not many of them perform cultural assessments regularly, disregarding the fact that such assessments do contribute to strong ethical tone (see: [35]; [36]). Some authors stressed and suggested the implementation of organizational culture audits (e.g. [37]; [38]), while others have dealt with practical issues related to these audits (see e.g. [43]; [50]; [41]) and provided some useful recommendations in this respect.

The author of this paper starts from several hypotheses: 1) there are legitimate reasons why it is important to audit integrity as a component of control environment and the internal control system; 2) the lack of clear and unique integrity definition represents the basic challenge for auditors; 3) because of its sensitive nature it is necessary to provide some preconditions for auditing; and 4) regular audits of organizational culture, including the integrity, may contribute to the empowerment of internal control system, risk management and corporate governance.

Organizational culture – meaning control/internal environment in COSO language – acts as binding element without which the system could not exist even with all the best materials and building skills. Management is, by all means, responsible for establishing, maintaining and evaluating control environment. However, the assessment of control environment is the segment of internal auditors' responsibility. The goal of this paper is to show why it is important to audit integrity, which challenges the auditors are facing, but also to render recommendations and offer some solutions in order to overcome the challenges and create added value.

2. METHODS AND MATERIALS

In the process of testing the established hypotheses the author of this paper has applied standard scientific methods such as: description, analysis and synthesis, inductive and deductive methods, abstraction and concretization and the method of comparison.

During the desk research conducted for the purpose of this paper, the author has analyzed relevant literature from the field of integrity, internal auditing, internal controls, corporate culture, expert articles, official documents, reports and regulations, relevant scientific research and surveys, as well as other sources which are directly or indirectly related to the subject of the paper. Based on comparative analysis of all collected sources, the author managed to reach common indicators and general conclusions regarding the defined hypotheses and goals.

3. RESULTS AND DISCUSSION

What is ‚integrity' as the subject matter of auditing?

Ethics and integrity are not just philosophical, sociological or psychological concepts. Ethical behavior and management integrity are the products of *corporate culture*. In corporate sense, ethics and integrity represent ‚soft' controls, i.e. the elements of control/internal environment and therefore are the integral part of the whole internal control system. According to COSO [1, 2] *the effectiveness of internal controls cannot rise above the integrity and ethical values of the people who create, administer and monitor them. Integrity and ethical values are essential elements of the control environment, affecting the design, administration and monitoring of other internal control components*. Risk management is another significant aspect of corporate governance. COSO [3] indicates that the elements of internal control system are integral part of the whole risk management process and that the first element refers to *internal environment* which includes risk management philosophy and risk appetite, *integrity and ethical values*, and the environment in which people operate.

Although COSO's Frameworks have clearly positioned ethics and integrity in corporate governance context, there is still a question of defining them, especially integrity, as a subject matter of auditing. Werner et al [4], in their comprehensive study on integrity, on the very beginning, point out that the key problem in understanding *integrity* results from the fact that this concept is often, in dictionaries and literature, overlapped and confused with concepts of morality and ethics. The concept „integrity" is derived from the Latin word *integritas* meaning „wholeness", „completeness" and „purity" [5, 6]. The common usage of the term „integrity" generally focuses on lapses or deficiencies in integrity. Integrity is thereby defined as „unimpeachable", „intact" or „incorruptible" [6]. It actually means to making sure that one does not become tarnished or corrupted or that one does not overstep the mark. Kaptein i Wempe [7] argue that integrity is not limited to one aspect of human character, such as the inclination not to get involved in corruption or - in positive terms - being honest. According to these authors, integrity refers to the integrative judgment and control of character, conduct, and consequences. Integrity, in fact, means "working on wholeness" in three respects: (1) by aligning values, norms, and ideals; (2) by striving for coherence be-tween words and deeds, and (3) by making a contribution to the greater whole. In similar way, Simons [8] emphasizes "behavioral integrity" as "… the perceived degree of congruence between the values expressed by words and those expressed through action," (p. 90) and points to the importance of what he terms "word-action" misfit. Simons' paper ". . . proposes that the divergence between words and deeds has profound costs as it renders managers untrustworthy and undermines their credibility and their ability to use their words to influence the actions of their subordinates." (p. 89).[2]

For the purpose of this research, the most interesting definition of integrity is the one suggested by Werner et al [4]. These authors define integrity as *a state or condition of being whole, complete, unbroken, unimpaired, sound, perfect condition.* They conclude that the integrity is a requisite condition for workability (nothing can work adequately if it is not whole), and workability is a requisite condition for performance. Therefore, the causal relationship has been established between integrity and performance, in a way that integrity is a necessary condition for performance. However, the most valuable contribution of these authors refers to the definition of integrity relating to a person and/or organization. Werner et al [4] suggested to be a person/group/organization of integrity all what is needed is to *„honor its word", which means either*

[2] See also: Simons [9].

keeping its word or being responsible for not doing so by restoring integrity and „cleaning up the mess" it has imposed on others who were depending on that word being kept. (p. 62). Understanding integrity as „honoring one's word" renders auditors much needed criteria for assessing integrity as an element of control environment because it enables integrity to be managed and empowered.

Why should integrity be audited?

Researches and case studies evidences

The consequences of unethical actions have been severe and investigated through empirical [10, 11], theoretical [12] and practice-oriented [13, 14] studies. Treadway Commission [15] believed that corporate environment, i.e. culture is the most important factor contributing to the integrity of the financial reporting process and has a pervasive impact on the entire process by which an organization's financial reports are prepared. As a reaction to fraudulent activities, many organizations have developed codes of conduct, training programs, and other initiatives to create environments that foster ethical decisions. The major purpose of these initiatives is to ensure that organizational members behave ethically when involved in activities both internal and external to the organization [16].

However, despite all the efforts invested in these initiatives, financial reporting frauds still occur. The results of study, carried out by the Association of Certified Fraud Examiners in 2014 [17], showed that, according to the examinees' estimations, typical organization loses 5% of revenues each year because of fraud. If applied to the 2013 estimated Gross World Product, this translates to a potential projected global fraud loss of nearly $3.7 trillion. Unfortunately, many frauds go undetected due to many factors including poor control environment, which is capable of affecting the organization's strategic objectives and vision [18]. Researches have shown that employees who cannot perpetrate fraud due to low financial pressure and existence of strong controls can still perpetrate fraud by rationalizing the act if the executive management commitment to integrity is low and/or the management flagrantly bypass or override the laid down controls. Therefore, Oke [178] has emphasized that *all the other interrelated components of internal control system are necessary but not sufficient without a strong control environment.* One of extreme cases is that of General Motors (see: [14]) and its many lessons considering the significance of integrity for all organizational levels, costs and other negative consequences caused by poor corporate governance.[3] This case shows clearly that no matter how employees were ethical and with integrity, if they are put in a culture of costs or numbers, they are lost and, along with them, the company (see: [19]).

On the other side, one of the most impressive examples showing the power of integrity and ‚honoring one's word' may be the company Johnson & Johnson[4]. Simply by honoring its word, Johnson & Johnson managed to maintain its integrity and thereby the consumers' trust. The Company re-

[3] In summer 2015, the number of people killed due to ignition switch defect exceeded 100. In September 2015, criminal charges were announced against GM that resulted in a deferred prosecution agreement and a $900 million forfeiture. Formally, this was an exemplar company with all the best governance practices applied, including the Code of Conduct. In essence, the concepts of ethics, integrity and legality were overlapped and confused, while the corporate culture was characterized by pressure, short deadlines, information covering up, focusing on cutting costs...

[4] In autumn 1982, Johnson & Johnson faced terrible affair with Tylenol capsules causing several consumers to die. However, instead of covering up the whole case, Johnson & Johnson proclaimed the truth, withdrew all the products under that name and replaced them with new ones for free – it took the responsibility and bore the consequences.

covered from the affair in a remarkably short period of time, although most experts forecasted the opposite outcome. In their research, Bitner, Booms and Tetreault ([20], p. 80-81), also confirmed how powerful can ‚honoring one's word' be in situations when it is not possible to ‚keep one's word'. Their study revealed that 23.3% of the *memorable satisfactory encounters involve difficulties attributable to failures in core service delivery. . . It suggests that even service delivery system failures can be remembered as highly satisfactory encounters if they are handled properly..* Thus, the results of the Bitner, Booms, and Tetreault study prove again that there is a relation between integrity and performance – where the performance was measured by customers' satisfaction.

The above mentioned case studies, but also other researches (see: [21]; [22]; [23]; [24]; [25]), render an important insight as they all suggest that strong soft controls (including the integrity) may be the substitute for expensive hard controls and thus provide the same or even better outcomes then those provided by formal internal controls. This is crucial in terms of adding value to organizations as it brings incredible opportunities for improving business efficiency and overall performance. Contrary to the traditional beliefs, recently some economists have started to highlight the fact that major variations among companies are caused by invisible forces inherent to companies themselves [26, 27]. Hosmer [28] argued that organizations dedicated ethical behaviour have a significantly better chance of success than those engaged in dishonest and unethical behaviour. The research carried out by Gilden [29] shows that consumers prefer to purchase from and invest in companies that are environmentally sensitive and display good behaviour (see also: [30]). Also, a number of researches have proved that there is a positive correlation between organizational behaviour based on ethics and integrity and financial performance (see e.g.: [31, 32, 33]). The study carried out by Graham, Harvey, Popadak and Rajgopal [34] among 1,348 companies in North America, has showed that more than 50% of executives believe that corporate culture presents one of three major contributors to company's value, and even 92% of them believe that its empowerment would increase the value of their company.

As Werner et al [4] emphasized in their integrity model, the chance for a system to meet any performance standards, which for the system has been created, would decrease if the system is not whole and complete. This is in accordance with COSO [2] which states that *for the system of internal controls to be effective, all five components have to be present* (the system should be whole and complete) *and all five components need to work together to accomplish the relevant objectives. A deficiency in one principle cannot be compensated by strong operation of another principle* (the implementation of system has to be complete, i.e. integrated). Werner et al [4] also concluded that even if the whole system is complete (has integrity), but one or more individuals, who are integral part of this system, are without integrity, there are great chances for a whole system to stay without integrity, meaning it would not be complete, and, thereby, effective. This conclusion is, also, in line with COSO's requirements [1, 2], since the very definition of internal control highlights that *in the organization, all are responsible for internal controls.* This means that if those who create, implement and supervise internal controls lack integrity, then the system, as a whole, cannot be complete, i.e. it cannot maintain its integrity, and as a result, its effectiveness.

Lack of recognition

Since the integrity do have a power, significance and implications regarding the compliance, financial statements reliability, fraud prevention and the quality of corporate governance, it is quite understandable that there is a need to assess and estimate the integrity as an element of control/internal environment, and the related risks. Unfortunately, although COSO has been emphasizing its importance for decades, it seems that academic and professional public recog-

nize it rather slowly. The survey carried out by PWC Fraud Academy in 2010 [35], has shown that *there are a wide range of approaches being used to establish the foundations for ethical tone*[5]. However, 77% of respondents state that leadership teams have an articulated set of values and principles but only 36% regularly assess them for relevance and applicability. Also, 70% agree/strongly agree that ethical risks are identified but only 34% report they are adequately measured or evaluated. The survey conducted by Hermanson et al [36] has provided similar conclusions indicating that (p. A36) *despite the emphasis placed on an organization's tone at the top … it appears that many companies do not regularly assess the tone at the top...* Besides, these surveys have shown that the organizations which assess corporate culture regularly have stronger tone at the top then the organizations not conducting regular assessments of the tone at the top. Therefore, we can conclude that regular assessments/audits of corporate culture (including the integrity) may provide its empowerment.

Castellano and Lightle [37] suggested the conduct of a *cultural audit* in which an assessment is made of 'the tone at the top and the attitude toward internal controls and ethical decision making' (2005, p.10). They argued that the tone at the top (set by CEOs and senior managers) affects the culture of an organization; and that an inappropriate tone is likely to increase the risk of fraudulent financial reporting and help explain cases of corporate collapse. Also, Amernic et al [38] promoted the idea that auditors should address the issue of business leadership risk in assessing audit risk – that is, that they should give particular attention to the risk of an organizational leader setting an inappropriate tone at the top. However, it is not easy to measure objectively factors affecting someone's ethics, integrity or management's tone. It is even more difficult to detect and identify ethical and integrity issues before they reflect on the business performance. However, that should not be an excuse to do nothing and ignore the need of dealing with the control environment [39].

Requirements of auditing standards

Measuring the effectiveness of control environment represents the integral part of the whole organization's performance measurement. Because of the unique position of internal auditing function in the organization, its contribution is especially valuable in this respect. The responsibilities of internal auditing function, concerning control environment assessment, have been stipulated by International Professional Practices Framework [40] as follows:

- **Standard 2130 – *Control***: „The internal audit activity must assist the organization in maintaining effective controls by evaluating their effectiveness and efficiency and by promoting continuous improvement." (p. 19).
- **Standard 2110 – *Governance***: „The internal audit activity must assess and make appropriate recommendations to improve the organization's governance processes for:
- *Overseeing risk management and control;*
- *Promoting appropriate ethics and values within the organization;*
- *Communicating risk and control information to appropriate areas of the organization.*" (p. 17)
- **Standard 2110.A1** – „The internal audit activity must evaluate the design, implementation, and effectiveness of the organization's ethics-related objectives, programs, and activities". (p. 18)

[5] These approaches include: establishing a set of core values and principles, regular communications of ethical values by leadership, and even declining business where it is not aligned with the ethical values of the business.

In order to assess the whole internal control system, internal auditors have to evaluate the control environment as well. Recognizing the significance of control environment audits, the Institute of Internal Auditors (IIA) has provided guidance for auditors by introducing two Practice Guides[6]. According to the IIA [41], roles and responsibilities of internal auditors relating to the control environment assessment include: *(1) assessment of risks from failure of each one of the six individual control environment elements and their interconnections... (4) individual evaluation of control environment deficiencies but also understanding how they interact with or impact other controls in the organization; and (5) communication of the control environment audit findings*. Also, when auditing the design of the organization's ethics-related objectives, programs, and activities, the most significant issues are often related to weaknesses in design. These may include, among other issues, comprehensive coverage of the code of conduct, e.g., does the code cover: *integrity in the workplace, integrity of information, integrity in the marketplace, integrity in society, integrity toward the environment* [42].

There is no doubt that the auditing of control environment or some of its elements (such as ethics and integrity), whether individually or as a part of other auditing engagements, is not just in accordance with different IPPF Standards and Practice Guides, but also provides the ***added value*** for an organization.

Challenges for auditors

Assessment of control environment and its components is necessary, but also challenging for the management. That is why many organizations are using services of the internal audit function. However, its effectiveness largely depends on the management level which to auditors communicate their results. Although CEOs and executives should be aware and informed on their tone, integrity and the related risks, the experts believe that it would be more appropriate to communicate about the audit results with auditing committee (see: [43]). Sensitive nature of soft controls (including integrity) requires certain preconditions to be provided, such as: *support from senior management and the board or the audit committee (formal and informal), internal auditing's reporting structure should be sufficiently independent to ensure minimal or virtually no scope limitation of the audit team, availability of appropriate criteria for assessment...*(see: [41]).

On one hand, regular audits of ethics and integrity would certainly strengthen the control environment, but, on the other hand, lower risks, resulting from this, would enable internal auditors to engage more resources in providing consulting services which are more likely to add value to their organizations. Thus, internal auditors are in a unique position to help improve the control/internal environment of an organization (see: [44]; [43]). Besides, internal auditors have developed tools and techniques which they can use in this process. Since it may be difficult to obtain direct evidence for soft controls through traditional testing, self-assessments, surveys, workshops, or similar techniques may be better suited than traditional methods (specifically: employee surveys, using the CAE's network within the organization and internal auditor's knowledge of the organization's inner-workings, "auditing by walking around", past audit results over control activities, internal auditors' participation in committees, taskforces, workgroups, and involvement in ethics and compliance program implementation and assessments) [41].

In order to gather information on 'soft' controls management and internal auditors often use the approach called Control self-assessment (CSA). The three primary CSA approaches, recom-

[6] (1) IPPF – Practice Guide: Auditing the Control Environment (April, 2011), and (2) IPPF – Practice Guide: Evaluating Ethics - related Programs and Activities (June, 2012).

mended by IIA, are *facilitated team meetings* (also known as workshops), *questionnaires,* and *management-produced analysis.* Most academic surveys on ethics and integrity are based on polls and questionnaires which are meant to provide insights in some aspects of organizational culture (e.g. [45]). However, Griesery et al [46] have warned that prejudices related to self-reporting may be rather serious when assessing integrity. E.g., there is a significant probability that the employees, not behaving ethically, would be more prone to lying or embellishing their answers in the polls. For this reason, the authors have evaluated integrity by questioning employees on all organizational levels (not just the top ones) and proved there is a strong relation between personal and professional ethics. However, these kinds of assessments are more verbal evidences, like interviews, and, therefore, should be tested and validated to provide basis for creating the opinion on an organization's internal controls.

The problem of assessing ethics and integrity can be found in that the most organizations and leaders have prejudices regarding these ‚soft' controls[7], and, therefore, are more likely to choose more symbolic and formal approach such as introducing policies and codes of ethics. They differ only by their individual efforts in promoting these policies/codes and insisting on their implementation. Besides all these formal programs, many organizations keep relying on the previously established corporate structures and/or processes, and that is why it is much more important to comprehend the informal and hard-to-notice side of ethics and integrity manifesting through corporate culture and subcultures or tone at the top (see: [47]). If current structures and processes are not able to implement contemporary ethics policies, then they have only a symbolic function in an organization. Therefore, any effort to assess the corporation's readiness to establish and implement adequate ethics and integrity, requires observing the whole organization – both, its formal and informal aspects (see: [48]).

Recommendations and solutions

Values stated in code of ethics should be, by all means, unambiguous and reflect, both, business and individual goals. However, management and employees will not always be able to comprehend these abstract principles and apply them in everyday situations. Typical example is the understanding of *integrity.* If this concept is not clear and easy to understand, it cannot be implemented or assessed. That is why the goal of this paper is to suggest the unambiguous definition of *integrity* (the one provided by Fuller and Jensen [49] and Werner et al [4]) as an audit criterion.

Individual behavior is strongly affected by the management's ethics, especially when faced with difficult situations and decisions to make. This is a very sensitive topic and it is not that easy to make top management aware of its responsibilities in this respect. If internal auditors are supposed to assess and communicate to the CEO or the board/auditing committee that certain items may not be „setting the right tone", this can be viewed as a reason to get fired. Nevertheless, as Lynn Fountain [50] has noticed, internal auditors need to overcome the simple check the box evaluation methods to see if certain things exist like board charters, code of conducts, conflicts of interest, authorization policies, personnel evaluations etc. These things should not exist just because of some compliance requirements. Management must understand that tone at the top actually means to fully support procedures and accept evaluations and readily evaluate recommendations for their potential impact to control environment processes.

7 An expectation that the leaders will act with integrity suggests a high degree of trust. Trust, in turn, is frequently defined as a "willingness to be vulnerable." Unfortunately this is a generally accepted view of trust (see: [25]).

Internal audit function may offer significant support to management, but the effectiveness of internal controls is primary the responsibility of management. Since an entity's control environment is the foundation of an organization's entire internal control structure, internal auditors need to consider the risk of control environment failures in the development of annual (and other periodic) audit plans as well as in planning each individual audit (see: [41]). Because of the sensitive nature of these audits, the IIA has provided a number of guidelines relating to the risk assessment, planning, organizing and conducting the control environment audits. Very often, in this case, it is necessary to obtain the support and sponsorship of the board and/or the CEO, that would enable internal auditors to have access to all relevant sources of information needed for their audit. Even the communication of the control environment audit findings involves many practical considerations as control deficiencies may be considered sensitive or confidential. Recommendations, given in the audit report, should be practical with positive intent and should address the root cause for the identified control environment risk. Also, given the sensitive nature of the findings, sometimes it would be needed that others in the organization, such as the audit committee and/or the board of directors, perform the follow-up of recommendations.

Also, the way the management view and treat the employees has a key impact on control environment. When people feel they are appreciated and respected by management, they will strive themselves to meet the expectations and achieve the results specified. Managing human factor, which is supposed to create value in long term, should not rely on the governing process based on manipulating people, not by controls nor by incentives [51]. That is why it is important for management to encourage *the dedication of employees to the organization's goals* (primary by its example, but also by including people in the process of establishing goals and tasks), *transparency in behavior* (the more people are aware of their own and others' behaviors, and their consequences, the more they would able to control and adjust them) and *open discussion on issues* (the more it is talked about sensitive issues, the less taboo they would be; also, transparency and openness create the atmosphere of trust and honesty).

4. CONCLUSION

Despite a number of new laws, regulations, guidelines and other initiatives, corporate scandals are still present in our economic reality. This indicates that the prevailing paradigm of financial economics has finally to take into consideration all those invisible elements of corporate culture, especially ethics and *integrity*. The reason is simple: on the one hand, they have been identified as the main cause of these scandals, and, on the other hand, long-term sustainability and business performance is not possible without them.

Issues of ethics and *integrity* are not some vague and voluntary principles that organizations can disregard since they represent, formally and essentially, the elements of organizational culture, i.e. control/internal environment, and thereby the integral parts of the whole internal control system, risk management process and corporate governance. The control environment is constituted by two dimensions. The first one relates to written regulations, policies, procedures, which are necessary but not sufficient conditions. No matter how well designed, and how much the management insists on their implementation, they will not be able to accomplish their mission if employees have, as a role models, leaders behaving unethically and without integrity, or who tacitly accept such behavior. This intangible dimension is a „spirit" of an organization and makes it vital and kinetic.

As many surveys and studies have shown, and regulations confirmed by their requirements, regular assessments of ethics and *integrity,* as components of corporate culture, are likely to strengthen internal controls, risk management and governance, but also, more specifically, they contribute to grater integrity of financial statements, minimization of fraud risks and higher business performance. Integrity is a foundation for the trust in leaders and organizations, and without such trust it is not possible to maintain a long-term sustainability and develop a successful business team. Although the issues of ethics, integrity and tone at the top are very sensitive and there are many challenges regarding their auditing and communicating their findings, it must not be an excuse to be passive and ignore the need for active approach. Assessment of control environment, including the integrity, is the primary responsibility of top management. However, because of its unique position in an organization, the internal auditing function may provide added value by its regular assessments of ethics and *integrity*.

REFERENCES

[1] COSO. (1994) *Internal Control – Integrated Framework.* Two-Volume edition. Jersey City: American Institute of Certified Public Accountants.
[2] COSO. (2013) *Internal Control—Integrated Framework*. New York: COSO.
[3] COSO. (2004) "Enterprise Risk Management Framework". *Exposure Draft for Public Comment*. Retrieved from www.imfperu.com/facipub/download/.../santandar_coso_erm.pdf.
[4] Werner, E., Jensen, M.C. & Zaffron, S. (2009) Integrity: A Positive Model that Incorporates the Normative Phenomena of Morality, Ethics and Legality. Retrieved from http://ssrn.com/abstract=920625.
[5] Taylor, G. & Gaita, R. (1981) Integrity. *Aristotelian Society*, Supplementary Vol. 55, 143-159.
[6] Benjamin, M. (1990) Splitting the Difference: Compromising and integrity in ethics and politics. *American Political Science Association,* 84(4):1348. DOI: 10.2307/1963275.
[7] Kaptein, M. & Wempe, J. (2011) Three General Theories of Ethics and the Integrative Role of Integrity Theory. Retrieved from http://dx.doi.org/10.2139/ssrn.1940393.
[8] Simons, T.L. (1999) Behavioral Integrity as a Critical Ingredient for Transformational Leadership. *Journal of Organizational Change Management*, V. 12, No. 2, 89-104. DOI: 10.1108/09534819910263640.
[9] Simons, T.L. (2002) Behavioral Integrity: The Perceived Alignment Between Manager's Words and Deeds as a Research Focus. *Organization Science*, V. 13, No. 1, 18-35.
[10] Weaver, G.R., Trevino, L.K. & Cochran, P.L. (1999). Corporate ethics programs as control systems: influences of executive commitment and environmental factors. *The Academy of Management Journal*, Vol. 42, No. I, 41-57.
[11] Weaver, G.R., Trevino, L.K. & Cochran, P.L. (1999) Corporate Ethics Practices in the Mid-1990's: An Empirical Study of the Fortune 1000. *Journal of Business Ethics*, Vol. 18, No. 3, 283-294.
[12] Velasquez, M. (1996) Why ethics matters: A defense of ethics in business organizations. *Business Ethics Quarterly,* 6, 201–222. DOI: 10.2307/3857623.
[13] Weaver, G. R. (2004) Ethics and employees: Making the connection. *Academy of Management Executive,* 18, 121–125.
[14] Jennings, M. & Trautman, L.J. (2016) Ethical culture and legal liability: the GM switch crisis and lessons in governance. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2691536.

[15] National Commission on Fraudulent Financial Reporting. (1987) Report of the National Commission *on Fraudulent Financial Reporting.* Retrieved from https://www.coso.org/Documents/NCFFR.pdf.
[16] D'Aquila, J. M. & Bean, D. F. (2011) Does A Tone At The Top That Fosters Ethical Decisions Impact Financial Reporting Decisions: An Experimental Analysis. *International Business & Economics Research Journal, Volume 2, Number 8,* 41-54.
[17] Association of Certified Fraud Examiners. (2014) *Report to the Nations on Occupational Fraud and Abuse – 2014 Global Fraud Study*. ACFE. Retrieved from https://www.acfe.com/rttn/docs/2014-report-to-nations.pdf.
[18] Oke, O. (2017) *Fraud Risk Management: The Role of Control Environment.* Retrieved from https://www.linkedin.com/pulse/fraudriskmanagementrolecontrolenvironmentolusola.
[19] Jensen, M. C. (2003) Paying People to Lie: The Truth About the Budgeting Process. *European Financial Management*, Vol. 9, No. 3. 379–406. DOI: 10.2139/ssrn.267651.
[20] Bitner, M., Booms, B. H. & Steinfield Tetreault, M. (1990) The Service Encounter: Diagnosing Favorable and Unfavorable Incidents. *Journal of Marketing*, V. 54: January, 71-84.
[21] Argyris, C. (1954) *Review: Satisfactions in the White Collar Job.* Retrieved from https://www.ilr.sagepub.com.
[22] Falk, A. & Kosfeld, M. (2006) The Hidden Costs of Control. *American Economic Review*, Vol. 96, No. 5, pp. 1611-1630.
[23] Yang, Z., Zhou, C. & Jiang, L. (2010) When Do Formal Control and Trust Matter? A Context-Based Analysis of the Effects in Marketing Channel Relationships in China, *Industrial Marketing Management,* Vol. 40, pp. 86-96.
[24] Chtioui, T. & Thiéry-Dubuisson, S. (2011) Hard and Soft Controls: Mind the Gap! *International Journal of Business*, Vol. 16, pp. 289-302.
[25] Penno, M. (2016) A Theory Of Assurance: Balancing Costly Formal Control With Tone At The Top. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2876700.
[26] Syverson, C. (2011) What Determines Productivity? *Journal of Economic Literature*, 49, 326-365. doi=10.1257/jel.49.2.326.
[27] Backus, M. (2015) Why is Productivity Correlated with Competition? *Columbia University Working Paper*. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKE wiwpP798-7cAhWxZpoKHcy2AB8QFjAAegQIABAC&url=http%3A%2F%2Fweb.business.queensu.ca %2Ffaculty%2Fjdebettignies%2Fdocs%2Fbackus_2014_wp_procom.pdf&usg=AOvVaw3YYdRhGuaNzRNNv6GZLD8e.
[28] Hosmer, L.T. (1994) Why be moral? A different rationale for managers. *Business Ethics Quarterly* 4 (2): 191-204.
[29] Gilden, R.L. (1995). Consumer Survey Confirms Corporate Social Responsibility Affects Buying Decisions. *Public Relations Quarterly*, 39, 20-21.
[30] Overall, J. (2016) Unethical behavior in organizations: empirical findings that challenge CSR and egoism theory. *Business Ethics: A European Review*, Volume 25, No 2, 113-127. DOI: 10.1111/beer.12110.
[31] Verschoor, C. C. (1998) A study of the link between a corporation's financial performance and its commitment to ethics. *Journal of Business Ethics* 17 (13): 1509-1516.
[32] Aguinis, H. & Glavas, A. (2012) What we know and don't know about corporate social responsibility: a review and research agenda. *Journal of Management*, 38:4, 932–968. DOI: 10.1177/0149206311436079.
[33] Endrikat, J., Guenther, E. & Hoppe, H. (2014) Making sense of conflicting empirical findings: a metaanalytic review of the relationship between corporate environmental and

financial performance. *European Management Journal*, 32:5, 735–751. DOI: 10.1016/j.emj.2013.12.004.

[34] Graham, J. R., Campbell R.H., Popadak, J., Rajgopal, S. (2017) Corporate Culture: Evidence from the Field. Retrieved from http://scholar.google.com/scholar_url?url=http://www.utahwfc.org/uploads/2017_paper2. pdf&hl=sr&sa=X&scisig=AAGBfm1_M6P72w-M16TDCouHExRs8hl3-Jw&nossl=1&oi=scholarr.

[35] PWC Fraud Academy. (2010) *Tone from the Top: Transforming Words into Action*. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiSsIrF8tbgAhUMQRQKHd9lA6oQFjAAegQIBBAC&url=https%3A%2F%2Fwww.bentley.edu% 2Fsites%2Fwww.bentley.edu.centers%2Ffiles%2Fcenters%2FTone%2520from%2520the%2520Top.pdf&usg=AOvVaw3qOzH8m7MNhtLkqPFpmNFd.

[36] Hermanson, D., Smith, J. & Stephens, N. (2012) How Effective are Organizations' Internal Controls? Insights into Specific Internal Control Elements, *Current Issues in Auditing,* Vol. 6, pp. A31-A50.

[37] Castellano, J.F. & Lightle, S.S. (2005) Using cultural audits to assess tone at the top. *The CPA Journal. 75*. pp. 6-11.

[38] Amernic, J., Craig, R. & Tournish, D. (2010) *Measuring and Assessing Tone at the Top Using Annual Report CEO Letters*. The Institute of Chartered Accountants of Scotland. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjvqYDT9NbgAhWE8eAKHSLzCq4QFjAAegQIDBAC&url=https%3A%2F%2Fresearchportal.port.ac.uk%2Fportal%2Ffiles%2F231889%2FCRAIG_2010_pub_Bk_Measuring_and_assessing_tone_at_the_top_using_annual_report_CEO_letters.pdf&usg=AOvVaw0imnE2htGhch4DHCdmvjXK.

[39] European Commission. (2015) *Public Internal Control Systems in the European Union – Towards the Optimal Internal Control Environment*. Retrieved from http://ec.europa.eu/budget/pic/lib/docs/2017/CD_ 06_OptimisingICforManagementOfEUfunds.pdf.

[40] The Institute of Internal Auditors. (2016). *International Professional Practices Framework. Accessed: January 2*017. Retrieved from: https://na.theiia.org/standards-guidance/Pages/Standards-and-Guidance-IPPF.aspx.

[41] The Institute of Internal Auditors (Global). (2011) *IPPF – Practice Guide: Auditing the Control Environment*. Retrieved from http://www.theiia.org/guidance.

[42] The Institute of Internal Auditors (Global). (2012) *Practice Guide: Evaluating Ethics – Related Programs and Activities.* Retrieved from https://na.theiia.org/standards-guidance/recommended-guidance/practice-guides/Pages/Evaluating-Ethics-related-Programs-and-Activities-Practice-Guide.aspx.

[43] Hansen, J.C., Stephens, N.M. & Wood, D.A. (2008) Entity-Level Controls: The Internal Auditor's Assessment of Management Tone at the Top. *Current Issues in Auditing*, Vol. 3, No. 1, pp. 1-13.

[44] Reding, K. F., Sobel, P. J., Anderson, U. L., Head, M. J., Ramamoorti, S., Salamasick, M. & Riddle, C. (2007). *Internal Auditing: Assurance and Consulting Services*. The IIA Research Foundation, Altamonte Springs, FL.

[45] Guiso, L., Sapienza, P. & Zingales, L. (2006) Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives*, 20, 23-48. DOI: 10.2139/ssrn.876601.

[46] Griesery, W., Qingqiu, L. & Simonovz, A. (2017) Integrity, Creativity, and Corporate Culture. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2741049.

[47] Trevino, L.K. (1990). A cultural perspective on changing and developing organizational ethics. In R. Woodman & W. Passmore (Eds.) *Research in organizational change and development,* vol, 4: 195-230. Greenwich, CT: JAI Press.

[48] Weaver, G. R., Trevino, L. K., & Cochran, P. L. (1999) Integrated and decoupled corporate social performance: Management commitments, external pressures, and corporate ethics practices. *Academy of Management Journal*, 42, 539–552. DOI: 10.2307/256975.

[49] Jensen, M. C. & Fuller, J. (2002) What's a Director to do? Harvard NOM Research Paper No. 02-38. *Negotiation, Organization and Markets Research Papers.* Retrieved from https://papers.ssrn.com/sol3/ papers.cfm?abstract_id=357722.

[50] Fountain, L. (2012) *The Control Environment.* Retrieved from https://www.kscpa.org/writable /files/Self-Study/FGE/updated_the_control_environment-_article.pdf.

[51] Stojanović T., Đokić S. i Đokić A. (2013) Organizational Behavior – Creative Tool for Creating Value. *International Review, No. 1-2*. 74-88.

[52] Frank, R., Bryan-Low, C., Pacelle, M., Smith, R., Berman, D., Mollenkamp, C., Young, S. (2003) Scandal scorecard. *The Wall Street Journal,* October 3, 2003. Retrieved from https://www.wsj.com/articles/SB 106791594884502200.

[53] Hamilton, A. M. (2002) A Season of Scandal. *Stanford Business,* November 2002. 14–18. Retrieved from https://www.gsb.stanford.edu/sites/gsb/files/2002November.pdf.

[54] Hirshleifer, D., P., Hsu, H. & Li, D. (2013) Innovative efficiency and stock returns. *Journal of Financial Economics*, 107(3), 632-654. DOI: 10.2139/ssrn.1799675.

[55] Mironov, M. (2015) Should one hire a corrupt CEO in a corrupt country? *Journal of Financial Economics*, 117(1), 29-42.

[56] Trevino, L.K., Weaver, G.R., Gibson, D.G. & Toffler, B.L. (1999). Managing Ethics and Legal Compliance: What Works and What Hurts, California Management Review, Vol 41, No 2, 131-151.

[57] Booth, P. & Schulz, A. K. (2003) The impact of an ethical environment on mangers' project evaluation judgments under agency problem conditions. *Accounting, Organizations and Society 29 (5-6):* 473-388.

[58] Hunton, J. E., Hoitash, R.& Thibodeau, J. C. (2011) The relationship between perceived tone at the top and earnings quality. *Contemporary Accounting Research* 28 (4): 1190-1224.

MJERENJE RELATIVNE EFIKASNOSTI SVEUČILIŠTA U HRVATSKOJ

MEASURING THE RELATIVE EFFICIENCY OF CROATIAN UNIVERSITIES

Maja Mihaljević Kosor[1]
Ivona Abramović

DOI: https://doi.org/10.31410/EMAN.2019.185

Sadržaj: *U ovom se radu analizira i mjeri efikasnost javnih sveučilišta u Hrvatskoj na uzorku od 75 visokoškolskih institucija kroz dva vremenska razdoblja. Koristi se metoda omeđivanja podataka. Ovaj tip analize može pridonijeti identifikaciji pokazatelja koji utječu na efikasnost visokoškolskih institucija. Također omogućuje komparativnu analizu javnih sveučilišta i isticanje pozitivnih primjera. Autori su koristili pet inputa i jedan output u modelu. Model je izlazno orijentirani s varijabilnim prinosima na opseg. Rezultati pokazuju da je relativna efikasnost javnih visokoškolskih institucija u Hrvatskoj niska. Samo je oko 10% institucija potpuno efikasno dok je prosječna efikasnost javnih visokoškolskih institucija nešto veća od 50%. Rezultati su zabrinjavajući, ali trebaju se interpretirati s oprezom. Glavno ograničenje u analizi je vezano uz nedostatne i nedostupne podatke na razini visokoškolskog sustava. Primjerice, nema usporedivih podataka o financiranju svake pojedine visokoškolske institucije, nema podataka o zapošljavanju diplomiranih studenata ili o objavama i istraživanjima akademskog osoblja na institucijama. Sve te varijable imaju značajan utjecaj na efikasnost i formuliranje obrazovne politike. Nema usporedivih podataka ni za privatne visokoškolske institucije u Hrvatskoj tako da je usporedba efikasnosti privatnog i javnog visokog školstva, za sad, neizvediva.*

Ključne reči: *efikasnost, javna sveučilišta, visokoškolske ustanove, Hrvatska, analiza omeđivanja podataka*

Abstract: *This paper analyses and assesses the efficiency of public universities in Croatia using a multi-period data envelopment analysis (DEA) for 75 higher education institutions. This type of analysis may help in identifying the main determinants affecting the efficiency of higher education institutions in Croatia. It also enables a comparative analysis of public universities, highlighting the positive examples. The authors used output oriented, variable returns to scale specification with five inputs and one output. The results suggest that the relative efficiency of public higher education institutions in Croatia is low. Only about 10% of institutions are completely efficient and the average efficiency is just above 50%. This is a cause for concern. However, these results need to be interpreted with caution due to data limitations. To name a few, there is no widely available data on funding for each institution, no data on employability of graduates from each institution, no comparable data on research and publishing by the academic staff. All of these have an important effect on efficiency and impede the formulation of any type of policy guidelines. Data limitations are also related to the private higher education sector which is expanding in Croatia. However, a comparison between the public and private sector is not yet feasible.*

Keywords: *efficiency, public universities, higher education institutions, Croatia, Data Envelopment Analysis*

---

[1] Sveučilište u Splitu, Ekonomski Fakultet, Cvite Fiskovića 5, 21000 Split, Republika Hrvatska

1. UVOD

Početkom 21. stoljeća Republika Hrvatska prema podacima Državnog zavoda za statistiku bilježi porast broja studenata koji upisuju studij, što upućuje na činjenicu da stanovnici sve više prepoznaju važnost visokog obrazovanja. U posljednjih 10-ak godina broj studenata je narastao za 33% [1]. Obzirom da je obrazovanje jedan od glavnih pokretača gospodarskog razvoja, svjesnost o važnosti visokog obrazovanja sve više raste. Broj studenata koji upisuju visoka učilišta kontinuirano raste. Rast visokoobrazovanih dovodi do gospodarskog napretka, inovacija, socijalne kohezije, manje stope nezaposlenosti i sl., ali treba naglasiti da su resursi za visoko obrazovanje ograničeni, a zbog velikog broja studenata i zahtjeva programa Horizon 2020 sve su veći pritisci na sustav visokog obrazovanja ne samo u Hrvatskoj već i u EU. Stoga je važno da se resursi koriste efikasno.

U literaturi postoje brojni radovi koji mjere efikasnost visokog obrazovanja putem analize omeđivanja podataka – AOMP (eng. Data Envelopment Analysis). To je deterministička, neparametarska metoda određivanja relativne efikasnosti usporedivih jedinica s obzirom na sličnu tehnologiju rada i obavljanje sličnih zadataka. Razvili su je Charnes, Cooper i Rhoades 1978. godine [2]. Donositelji odluka u obrazovanju tako mogu biti nacionalna gospodarstva, visokoškolske institucije, studenti i sl. U stranoj znanstvenoj literaturi o efikasnosti visokog školstva u kojoj se koristi AOMP prednjače SAD, Velika Britanija, Australija i Italija. Analiza i usporedbe efikasnosti visokoškolskih institucija za veći broj zemalja su još rijetkost.

U ovom se radu analizira i mjeri efikasnost javnih sveučilišta u Hrvatskoj na uzorku od 75 visokoškolskih institucija kroz dva vremenska razdoblja. Koristi se metoda omeđivanja podataka. Ovaj tip analize može pridonijeti identifikaciji pokazatelja koji utječu na efikasnost visokoškolskih institucija. Također omogućuje komparativnu analizu javnih sveučilišta i isticanje pozitivnih primjera. Ovo je također prva primjena metode omeđivanja podataka za mjerenje efikasnosti visokoškolskih institucija u Hrvatskoj.

U drugoj cjelini predstavljamo glavne značajke metode. U trećoj cjelini je analiza relevantne literature. U četvrtoj cjelini se prikazuje model i analiziraju rezultati. Zaključak je u petoj cjelini.

2. KARAKTERISTIKE ANALIZE OMEĐIVANJA PODATAKA

Analiza omeđivanja podataka (u nastavku AOMP) predstavlja tehniku neparametarskoga linearnog programiranja koja se koristi za procjenu relativne efikasnosti donositelja odluka (DO) koji koriste više istih inputa i outputa, a međusobno se razlikuju prema razini resursa kojima raspolažu i razini aktivnosti unutar transformacijskog procesa [1]. Efikasnije su one jedinice koje za određeni iznos inputa pružaju veći iznos outputa. Inputi i outputi trebaju biti izabrani tako da inputi obuhvate sve resurse, a outputi sve relevantne aktivnosti ili ishode za određenu analizu efikasnosti. Ako je cilj minimizirati inpute uz ostvarenje (barem) zadane razine outputa, koristi se model usmjeren na inpute, dok se za maksimiziranje outputa uz istodobno korištenje (najviše) zadane količine inputa odabire model usmjeren na outpute. Najosnovniji modeli AOMP-a su CCR (Charnes – Cooper – Rhodes) i BCC (Banker – Charnes – Cooper) modeli nazvani prema inicijalima svojih autora. Osnovna razlika između tih modela sastoji se u pretpostavljenoj transformaciji inputa u otpute. Ti modeli su relativno jednostavni i odnose se na jedan vremenski period.

Nedostaci ove metode su osjetljivost na pogreške u podacima i činjenica da ocjenjuje relativno (uspoređivanjem DO samo s onim najboljim u promatranom skupu), a ne apsolutno. U svom radu [3] navodi kako nema mjesta za procjenu preostalih reziduala, pa stoga statističko zaključivanje ne može biti korišteno za ispitivanje mogućih pristranosti koje proizlaze iz vanjskih šokova, pogrešnih mjerenja ili izostavljene varijable.

3. PREGLED LITERATURE

U Hrvatskoj do sada nije napravljena ova vrsta analize za visokoškolske institucije. U Europi i ostatku svijeta dosta analiza efikasnosti je izrađeno koristeći AOMP [4], kao npr. [5] - [12] i mnogi drugi. Zemlje koje najviše u primjeni koriste AOMP analizu su Velika Britanija i Australija, a nakon njih u Europi se još javlja u Nizozemskoj, Italiji, Austriji, Grčkoj i sl. U nastavku će se detaljnije objasniti neki radovi vezani za ispitivanje efikasnosti visokoškolskih institucija AOMP metodom.

[8] su analizirali efikasnost pojedinih australskih sveučilišta putem AOMP analize. Kao inpute u analizi koriste broj akademskog osoblja, broj neakademskih djelatnika, izdatke za sve inpute, i vrijednost dugotrajne imovine. Outputi u analizi su broj redovnih studenata, broj upisanih poslijediplomskih i diplomskih studenata i broj poslijediplomiranih i diplomiranih studenata. Rezultati su pokazali da su australska sveučilišta kao grupa vrlo uspješna i imaju visoki koeficijent tehničke efikasnosti.

Za Portugal su [7] analizirali efikasnost 52 javna sveučilišta u 2003. godini primjenom AOMP analize. Inputi u analizi su prosječna ukupna potrošnja po studentu od 2000.-2003. godine i omjer nastavnika i studenata na javnim sveučilištima za generaciju 2003./2004., a outputi su bili stopa uspjeha u 2002./2003. godini i broj doktoranata po svakom sveučilištu. Ukupna efikasnost je bila između 0,553 i 0,678, što znači da bi prosječno fakulteti / instituti / sveučilišta u njihovom uzorku mogli postići istu razinu outputa koristeći za 44,7 % i 32,2 % manje inputa.

Za Njemačku su [9] analizirali efikasnost 72 javna sveučilišta za razdoblje od 1998. do 2003. godine. Četiri inputa koja su korištena u analizi su broj tehničkih kadrova, broj istraživačkih kadrova, tekući izdaci i ukupni troškovi. Outputi analize su broj diplomiranih i iznos potpora za istraživanje. Uzimajući u obzir omjer troškova za visokoobrazovane studente, ustanovili su da sveučilišta u istočnoj Njemačkoj pokazuju veće troškove po diplomiranom studentu od svojih zapadnjonjemačkih kolega.

U radu [5] analiziraju se visokoškolske institucije u Engleskoj kako bi se procijenila njihova struktura troškova, učinkovitost i produktivnost koristeći AOMP analizu. U analizi su upotrijebili samo jedan input i to ukupni operativni trošak koji obuhvaća ukupne troškove poslovanja, bez troškova boravka i prehrane, te šest različitih outputa. Zanimljivo je da je njihova analiza pokazala da postoji velika mogućnost za povećanje broja diplomiranih studenata bez ikakvog dodatnog troška, ako su svi inputi usmjereni na podizanje broja diplomiranih studenata.

Efikasnost 109 visokih učilišta u Engleskoj putem AOMP za akademsku godinu 2000./2001. je ispitala Johnes, J. [13]. Koristila je 6 inputa (broj preddiplomskih studenata, broj poslijediplomskih studenata, broj redovitih akademskih djelatnika za nastavu ili poučavanje i istraživanja, ukupna amortizacija i kamata, ukupni izdaci za središnje knjižnice i informatičke usluge i izdaci za središnju upravu i središnje usluge bez troškova akademskog osoblja i amortizacije).

Outputi u analizi bili su: 1) broj prvostupnika podijeljeni prema stupnju obrazovanja, 2) broj diplomanata, te 3) vrijednost nagrađenih istraživanja koje financira Vijeće za financiranje visokog obrazovanja za Englesku. Pokazalo se da je tehnička efikasnost na sveučilištima u Engleskoj visoka i iznosi oko 94%.

4. ANALIZA EFIKASNOSTI JAVNIH SVEUČILIŠTA U HRVATSKOJ

U ovom se dijelu radu analiza efikasnosti provodi za javna sveučilišta u Hrvatskoj tj. za njihove sastavnice. Od ukupno 92 visokoškolske institucije za generaciju 2016./17. u analizi će se koristit njih 75 zbog nepotpunih podataka za inpute i outpute svakog DO-a. Analiza se vrši u razmaku od 5 godina radi bolje usporedbe rezultata, odnosno za generacije 2011./12. i 2016./17. putem ranije objašnjene AOMP analize. Svakoj visokoškolskoj instituciji dodijeljena je oznaka DO1, DO2, DO3, …, DO75 (sukladno abecednom redoslijedu). Puni naziv DO-a može se pronaći u prilogu 1.

Nakon odabira donositelja odluka, potrebno je definirati inpute i outpute. Output predstavlja cilj, dok inputi predstavljaju resurse koji se koriste u postizanju određenog cilja. Naime, jako je teško doći do sistematiziranih podataka za visokoškolske institucije, pogotovo u slučaju privatnih visokoškolskih institucija te su one morale biti isključene iz analize. Svi podaci su preuzeti sa Državnog zavoda za statistiku [14] gdje svake tekuće godine objavljuju statističke izvještaje za prethodnu godinu. Sukladno relevantnoj literature, inputi i outputi koji će se koristiti za ocjenu efikasnosti javnih visokoškolskih institucija u Republici Hrvatskoj nalaze se u Tablici 1.

Tablica 1: Inputi i outputi korišteni u AOMP. Izvor: autori

Inputi	**STU**	ukupan broj upisanih studenata
	PRV	broj studenata koji su upisali 1. godinu fakulteta
	NAS	ukupan broj nastavnika
	DOC	broj nastavnika sa titulom doktora znanosti
	MAG	broj nastavnika sa titulom magistra znanosti
Output	**DIP**	broj diplomiranih

Tablica 2: Rezultati BCC modela orijentiranog na outpute

Opis	**2011./12.**	**2016./17.**
Broj efikasnih DO	6	9
Broj DO s koeficijentom efikasnosti od 0,99 – 0,50	27	36
Broj DO s koeficijentom efikasnosti manjim od 0,50	42	30
Najveća efikasnost	1,000	1,000
Standardna devijacija	0,23436	0,23938
Srednja vrijednost	0,497	0,584

Prilikom analize efikasnosti javnih visokoškolskih institucija korišten je izlazno orijentirani BCC model s varijabilnim prinosima na opseg. Nekoliko modela je ispitano, a ovdje su predstavljeni rezultati analize tehničke efikasnosti 75 visokoškolskih institucija korištenjem inputa STU, DOC i MAG, te outputa DIP. Rezultati analize (u Tablici 2) pokazuju da je samo 6 od 75 visokoškolskih institucija potpuno efikasno u generaciji 2011./12. (njih 8 %), odnosno 9 u ge-

neraciji 2016./17. (njih 12%). Broj visokoškolskih institucija s koeficijent efikasnosti manjim od 1 je poprilično velik. Prosječna efikasnost visokoškolskih institucija za 2011./12. jest 49,70%, odnosno 58,40% za 2016./.17. što ukazuje na nisku razinu efikasnosti. Također iz tablice se može vidjeti poboljšanje broja DO-a koji su imali koeficijent efikasnosti u rasponu od 0,99 - 0,50, povećao se broj DO-a sa 27 u 2011./12. na 36 DO-a u 2016./17., a istovremeno se smanjio broj neefikasnih sa 42 u 2011./12. na 30 DO-a u 2016./17.

Ukoliko se rezultati svake visokoškolske institucije dodijele njenom odgovarajućem sveučilištu, može se prikazati prosječna efikasnost sveučilišta (u Tablici 3). Sveučilište u Rijeci ima najveći koeficijent tehničke efikasnosti u 2016./17. (64,87%), a prate ga Sveučilište u Zagrebu i Splitu.

Tablica 3: Prosječna efikasnost za sveučilišta korištena u analizi

Naziv / godina	**Prosječna efikasnost**	
	2011./12.	**2016./17.**
Sveučilište u Zadru	20.63%	49.39%
Sveučilište u Zagrebu	54.93%	61.65%
Sveučilište u Splitu	46.10%	59.36%
Sveučilište Jurja Dobrile u Puli	20.35%	26.59%
Sveučilište u Rijeci	54.64%	64.87%
Sveučilište J. J. Strossmayera u Osijeku	45.32%	48.96%
Sveučilište u Dubrovniku	29.40%	38.21%

5. ZAKLJUČAK

Analiza je pokazala da je relativna efikasnost javnih visokoškolskih institucija u Hrvatskoj niska. Samo je oko 10% institucija potpuno efikasno dok je prosječna efikasnost javnih visokoškolskih institucija nešto veća od 50%. Rezultati su zabrinjavajući, ali trebaju se interpretirati s oprezom. Glavno ograničenje u analizi je vezano uz nedostatne i nedostupne podatke na razini visokoškolskog sustava. Primjerice, nema usporedivih podataka o financiranju svake pojedine visokoškolske institucije, nema podataka o zapošljavanju diplomiranih studenata ili o objavama i istraživanjima akademskog osoblja na institucijama. Sve te varijable imaju značajan utjecaj na efikasnost i formuliranje obrazovne politike. Nema usporedivih podataka ni za privatne visokoškolske institucije u Hrvatskoj tako da je usporedba efikasnosti privatnog i javnog visokog školstva, za sad, neizvediva.

LITERATURA

[1] Eurostat (2018.): Students: Tertiary education (1 000), dostupno na: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00062&plugin=1 [23.01.2019.]

[2] Charnes A., Cooper W.W, Rhodes E. (1978): Measuring the efficiency of decision making units, *European Journal of Operational Research, Vol. 2, No. 6*, str. 429-444

[3] Mihaljević Kosor M. (2013): Efficiency Measurement in Higher Education: Concepts, Methods and Perspective, *Procedia - Social and Behavioral Sciences*, *vol. 106*, str. 1031

[4] Emrouznejad A., Yang G. (2018.): A survey and analysis of the first 40 years of scholarly literature in DEA: 1978 – 2016, *Socio-Economic Planning Sciences 61*, str. 4-8
[5] Thanassoulis E., Kortelainen M., Johnes G., Johnes J. (2011.): Costs and efficiency of higher education institutions in England: a DEA analysis, *Journal of the Operational Research Society* (2011) 62, str. 1282–1297
[6] Leitner K. H., Prikoszovits J., Schaffhauser-Linzatt M., Stowasser R., Wagner K. (2007.): The impact of size and specialisation on universities department performance: A DEA analysis applied to Austrian universities, *Higher Education* (2007) 53, str. 517–538
[7] Afonso A., Santos M. (2005): Students and Teachers: A DEA Approach to the Relative Efficiency of Portuguese Public Universities, *SEG-UTL Economics Working Paper No.* 07/2005
[8] Abbott M., Doucouliagos C. (2003.): The efficiency of Australian universities: a data envelopment analysis, *Economics of Education Review* 22 (2003), str. 89–97
[9] Kempkes G., Pohl C. (2006.): The Efficiency of German Universities – Some Evidence from Non-Parametric and Parametric Methods, Ifo Working Paper no. 36
[10] Katharaki M., Katharakis G. (2010.): A comparative assessment of Greek universities' efficiency using quantitative analysis, *International Journal of Educational Research* 49 (2010), str. 115–128
[11] Taylor B., Harris G. (2004.): Relative efficiency among South African universities: A data envelopment analysis, *Higher Education* 47, str. 73–89
[12] Rządziński L., Sworowska A. (2016.): Parametric and Non-Parametric Methods for Efficiency Assessment of State Higher Vocational Schools in 2009-2011, *Entrepreneurial Business and Economics Review*, 4(1), str. 95-112
[13] Johnes J. (2006): Data envelopment analysis and its application to the measurement of efficiency in higher education, *Economics of Education Review*, *vol. 25, br. 3*, str. 273288
[14] Državni zavod za statistiku (2017.): Procjene stanovništva republike hrvatske u 2016., dostupno na: https://www.dzs.hr/Hrv_Eng/publication/2017/07-01-03_01_2017.htm

PRILOZI

Agronomski fakultet, Zagreb	DO1	Medicinski fakultet, Rijeka	DO39
Arhitektonski fakultet, Zagreb	DO2	Medicinski fakultet, Split	DO40
Edukacijsko-rehabilitacijski fakultet, Zagreb	DO3	Medicinski fakultet, Zagreb	DO41
Ekonomski fakultet, Osijek	DO4	Metalurški fakultet, Sisak	DO42
Ekonomski fakultet, Rijeka	DO5	Odjel za biologiju Sveučilišta u Osijeku	DO43
Ekonomski fakultet, Split	DO6	Odjel za biotehnologiju Sveučilišta u Rijeci	DO44
Ekonomski fakultet, Zagreb	DO7	Odjel za fiziku Sveučilišta u Osijeku	DO45
Fakultet elektrotehnike, računarstva i informacijskih tehnologija, Osijek	DO8	Odjel za fiziku Sveučilišta u Rijeci	DO46
Fakultet elektrotehnike i računarstva, Zagreb	DO9	Odjel za informatiku Sveučilišta u Rijeci	DO47
Fakultet elektrotehnike, strojarstva i brodogradnje, Split	DO10	Odjel za kemiju Sveučilišta u Osijeku	DO48
Fakultet građevinarstva, arhitekture i geodezije, Split	DO11	Odjel za kulturologiju Sveučilišta u Osijeku	DO49

Fakultet kemijskog inženjerstva i tehnologije, Zagreb	DO12	Odjel za matematiku Sveučilišta u Osijeku	DO50
Fakultet organizacije i informatike, Varaždin	DO13	Odjel za matematiku Sveučilišta u Rijeci	DO51
Fakultet političkih znanosti, Zagreb	DO14	Poljoprivredni fakultet, Osijek	DO52
Fakultet prometnih znanosti, Zagreb	DO15	Pomorski fakultet, Rijeka	DO53
Fakultet strojarstva i brodogradnje, Zagreb	DO16	Pomorski fakultet, Split	DO54
Fakultet za menadžment u turizmu i ugostiteljstvu, Opatija	DO17	Pravni fakultet, Osijek	DO55
Farmaceutsko-biokemijski fakultet, Zagreb	DO18	Pravni fakultet, Rijeka	DO56
Filozofski fakultet Družbe Isusove, Zagreb	DO19	Pravni fakultet, Split	DO57
Filozofski fakultet, Osijek	DO20	Pravni fakultet, Zagreb	DO58
Filozofski fakultet, Rijeka	DO21	Prehrambeno-biotehnološki fakultet, Zagreb	DO59
Filozofski fakultet, Split	DO22	Prehrambeno-tehnološki fakultet, Osijek	DO60
Filozofski fakultet, Zagreb	DO23	Prirodoslovno-matematički fakultet, Split	DO61
Filozofsko-teološki institut Družbe Isusove, Zagreb	DO24	Prirodoslovno-matematički fakultet, Zagreb	DO62
Geodetski fakultet, Zagreb	DO25	Rudarsko-geološko-naftni fakultet, Zagreb	DO63
Geotehnički fakultet, Varaždin	DO26	Stomatološki fakultet, Zagreb	DO64
Građevinski fakultet, Osijek	DO27	Strojarski fakultet, Slavonski Brod	DO65
Građevinski fakultet, Rijeka	DO28	Sveučilišni odjel za studije mora, Split	DO66
Građevinski fakultet, Zagreb	DO29	Sveučilište u Dubrovniku, Sveučilišni odjeli	DO67
Grafički fakultet, Zagreb	DO30	Sveučilište u Puli – Pola, Sveučilišni odjeli	DO68
Hrvatski studiji, Zagreb	DO31	Sveučilište u Zadru, Sveučilišni odjeli	DO69
Katolički bogoslovni fakultet, Đakovo	DO32	Šumarski fakultet, Zagreb	DO70
Katolički bogoslovni fakultet, Split	DO33	Tehnički fakultet, Rijeka	DO71
Katolički bogoslovni fakultet, Zagreb,	DO34	Tekstilno-tehnološki fakultet, Zagreb	DO72
Kemijsko-tehnološki fakultet, Split	DO35	Učiteljski fakultet, Rijeka	DO73
Kineziološki fakultet, Split	DO36	Učiteljski fakultet, Zagreb	DO74
Kineziološki fakultet, Zagreb	DO37	Veterinarski fakultet, Zagreb	DO75
Medicinski fakultet, Osijek	DO38		

Prilog 1: Popis visokoškolskih institucija korištenih u analizi i njihove kratice

EMPLOYEE'S PERFORMANCE AS A RESULT OF SATISFACTION, INNOVATION AND EMPOWERMENT BY MANAGERS

Osman Sejfijaj[1]
Ermira Shehu[2]
Fatmir Memaj[3]

DOI: https://doi.org/10.31410/EMAN.2019.193

Abstract: *This paper investigates the relationships between satisfaction, empowerment, innovation and employee performance. A number of studies prove that employee's empowerment can be used to enhance and improve the organizational performance of the enterprise by involving employees in development processes, influencing satisfaction and innovation in its overall performance.*

These empirical studies have analyzed the direct effects of employee empowerment through satisfaction and innovation by supporting the mediating role of employee attitudes and management behaviors.

This paper contributes to the literature on employee empowerment by proposing and testing the direct effect of employee empowerment on performance, as well as the effects mediated by job satisfaction and innovation influenced by Kosovo managers in changing dynamic and unsafe conditions.

The empirical analysis relies on the data collected through the questionnaire in Kosovo public and private enterprises. The results support the structure of hypotheses presented. Empowering employees has a direct impact on performance through the impact of job satisfaction and innovation.

Keywords: *empowerment, attitudes, involvement, performance, satisfaction.*

1. INTRODUCTION

This study focuses on analyzing and exploring the practices of employee empowerment and managers' attitudes, including innovation and their impact on employee performance in Kosovo enterprises.

Kosovo has faced radical changes during the past decade. Moreover, because of its special political condition, it had extremely difficult business conditions affecting entrepreneurship development during various stages.

In order to organize a company effectively, companies in Kosovo must rethink how they hire, train and reward their employees; therefore, the employees could and should be encouraged to be competitive. Undoubtedly, there is an important factor in organization's human resources. One of the main management strategies of Kosovo organizations must be investment in employees.

Work satisfaction experienced by employees will encourage people to give their best to the organization. Organizational behavior managers should be interested in the nature of attitudes and behaviors of their employees towards their work, their careers, and the organization itself.

1 University for Business and Technology, Pristina
2 University for Business and Technology, Pristina
3 University of Tirana, Tirana - Albania

Employee attitudes and behaviors are very important for achieving both individual and organizational objectives through their performance.

Organizations should adopt practices of the performance management that are consistent with the requirements of the organization policy and that best fit the nature of the work performed and the mission of the organization. Each organization's policy should specify how the performance management system will be carried out.

Thus, performance management should be an important step in the Kosovo organization's HRM system that influences employee performance and organizational performance.

Organizations have also used these processes to support or dive into culture change and to shift the emphasis to individual performance and self-development. The business environment in Kosovo is becoming one of the most competitive in the region, Kosovo has the youngest population in Europe with 70 percent of the population under the age of 35; Krasniqi B. A. (2012) argued that entrepreneurs are more concerned with constraints related to the external environment rather than internal factors such as managerial skills.

The literature suggests that employee empowerment is positively correlated with performance (Conger, J., & Kanungo, R. 1988, Brymer, R. A. 1991, Lawler, E. E., 1992, Powell, T. C., 1995 Howard, L. W., & Foster, S. T., 1999; Ugboro, I. O, & Obeng, K., 2000 Singh, R. K., 2011).

Empirical studies show a positive correlation between employee empowerment and managers' attitudes, including innovation as a basis and a necessity for achieving objectives and achieving performance (Ahmed, P. K., and Shepherd C. D., 2010, Landry, R., 2005, Garud, R., 2009, Cho, H. and Pucik, V., 2005. Damanpour, F., 1991. Gunday, G., Ulusoy, G., Kılıç, K., and Alpkan, L., 2011. Harris, L. C., 2001 Johannessen, J. A., 2008, Murphy, G. B., Trailer, J. W., and Hill R. C., 1996). Organizational engagement of managers facilitates the whole process (Halbesleben and Wheeler, 2008, Koyuncu et al 2006, Kular et al 2008, Robinson et. 2004, Shaufeli and Salanova, 2007).

All of these empirical studies analyzed the direct effects of employee empowerment on work performance and attitudes, managers' behavior in workplaces, the impact of satisfaction, innovative practices, regardless of each other, and regardless of indirect or mediating effects.

However, employee empowerment theory shows a structure with complex causes, employee empowerment practices that affect employee performance in a direct and indirect manner, as mediated by managers and attitudes to employees (Lawler E. E., 1992. Verma O. P., 1985; Caldwell D. F., O'Reilly C. A., 1990. Velnampy T., 2006).

Other important areas of management research, including motivation theory (Latham, 2012. Herzberg, F., 2009) and leadership theory (see Bass and Bass 2008), show a similar structure and managerial interventions that affect attitudes of employees, which, in turn, affect their behavior.

Thomas and Velthouse, (1990), defined empowerment as a higher level of internal motivation of office or commitment and internal engagement in a task as is evident in the four assessments of that task: impact, competence, understanding and choice. As an employee makes positive evaluations for these four aspects of the assignment, he or she will feel more internal motivation and empower.

Spreitzer, 1996 described the empowerment of employees as a motivational structure with four dimensional elements composed of: knowledge - understanding, competence, self-determination and influence - reflecting an active orientation towards the role of work.

From a managerial perspective, employee empowerment is a relational construct that describes how power-loving organizations share energy, information, resources, and rewards with those who miss you. The intellectual origin of this concept dates from the fundamental contributions to the movement of human relations in the theory of organization (e.g. Argyris, 1957, Likert, 1967, McGregor, 1960, Potterfield, 1999).

Kanter (1979) developed a structural theory of organizational power that describes how power comes from three sources: supply lines, information lines, and support lines, including top management support and discretion to engage in innovative behaviors.

To the extent that managers provide employees with access to these three sources of power, they manage to empower them. Arnold et al. (2000) and Ahearne, Mathieu and Rapp (2005) created multi-dimensional definitions of empowering employees who treat power as an approach or style of leadership. Ahearne, Mathieu and Rapp's Empowering Styles Leadership include leading behaviors that enhance understanding of work, promote decision-making, express confidence in high performance, and ensure autonomy from bureaucratic restrictions. Arnold et al. defined empowerment as an approach to leadership that includes the following leadership behaviors: guided by example, including others in decision-making, training, and information and showing concern for others.

Bowen and Lawler (1992, 1995) recognized that a key component of empowerment is the division of power and authority with lower-level employees and allowing them to make decisions about how to provide services. However, they noted that "many empowerment programs fail to focus on power without redistributing information, knowledge, and rewards."

According to them, employee empowerment is an approach to providing services that involves managers to share their employees with these organizational components:

- Information on the organization's performance,
- Rewards based on the organization's performance,
- Enabling employees to understand and contribute to organizational performance, and
- The power to make decisions that affect organizational direction and performance.

2. REVIEW OF LITERATURE

2.1. Empowerment and performance

An employee empowerment approach by managers consisting of practices aimed at exchanging information, rewards, work knowledge, the ability to acquire knowledge, new experiences and authority with employees are expected to be positively related to the performance, opportunity and freedom of adding and giving to authorized employees that provides them with flexibility to adapt to unforeseen circumstances, improve the quality of interactions with recipients and use more productivity of their time (Bowen and Lawler 1992, 1995, Langbein, 2000).

Empowerment also increases the technical knowledge and skills of employees, enabling them to perform more efficient tasks (Bowen and Lawler 1992, 1995; Lawler, Mohrman and Ledford 1995). Establishing goals and responses, highlighted activities in an empowerment approach, also have a significant impact on employee efforts and performance.

UNDP Report (2012) seeks to understand what policy adjustments need to be made to enable wealth creation to enhance human potential. According to the UNDP Human Development Index (HDI), Kosovo ranks 87th in the world, behind all the rest of Europe:

Table 1. Kosovo Human Development Index regional comparison

	Human Development Index (HDI)	Life expectancy at birth (years)	Mean years of schooling	Expected years of schooling	Gross national income (GNI) per capita
Slovenia	0.884	79.3	11.6	16.9	24,914
Croatia	0.796	76.6	9.8	13.9	15,729
Montenegro	0.771	74.6	10.6	13.7	10,361
Bulgaria	0.771	73.4	10.6	13.7	11,412
Serbia	0.766	74.5	10.2	13.7	10,236
Albania	0.739	76.9	10.4	11.3	7,803
Bosnia and Herzegovina	0.733	75.7	8.7	13.6	7,664
Macedonia (The former Yugoslav Republic)	0.728	74.8	8.2	13.3	8,804
Kosovo	0.713	70.0	11.2	11.3	7,410

The human development index has three components: health, education and living standards and is calculated based on a methodology built upon the four primary indicators in Figure 0.1 above: life expectancy at birth, mean years of schooling, expected years of schooling and GNI per capita.[1] Indicators for countries in the region taken from UNDP Global Human Development Report (GHDR) 2011. Indicators for Kosovo (which is not a UN member state therefore is not included in the HDR 2011 statistics) calculated by Research and Policy Unit, UNDP Kosovo

Training and development can serve as a channel for disseminating innovations when employees learn and present ideas successfully implemented in other organizations. Training and development improve an employee's ability to diagnose and solve technical problems (Damanpour, 1991, Hurley and Huit, 1998), thus increasing the likelihood that innovative proposals will be designed and implemented successfully (Dewar and Dutton, 1986).

Goal setting follows organizational priorities and encourages accomplished job-seekers to seek new strategies and tactics to achieve these goals. Importantly, negative responses to failure may encourage a search for innovative solutions to the problems (Fernandez and Wise, 2010).

Spreitzer, De Janasz and Quinn (1999) showed that empowered managers are more likely to be perceived as innovative and inspiring by employees than other managers.

2.2. EMPOWERMENT AND SATISFACTION OF WORK

Some studies on the implementation and use of empowerment in public organizations show that an employee empowerment approach is among the most powerful job satisfaction forecasters for public employees (Lee, Cayer and Lan, 2006, Wright and Kim, 2004).

Empowerment practices are designed to encourage employees through their influence on the different internal characteristics (assistance, sharing of responsibilities, and exchange of auton-

omy experiences) and external (merit-based wages, training opportunities, career development and acquisition of new knowledge).

The research based on the model of work characteristics (Hackman and Oldham 1976) has shown strong correlations between internal characteristics of the work and job satisfaction and other employee attitudes, especially when using subjective measures of the internal characteristics of the work (Fried and Ferris, 1987: Glick, Jenkins, and Gupta, 1986; Glisson and Durick, 1988).

Empirical research based on self-determination theory suggests that factors such as response, training, and development and delegation opportunities encourage satisfaction of psychological needs for autonomy and competence, enhancing satisfaction and well-being (Gagne and Deci, 2005, Illardi et al 1993.

2.3. PROBLEM STATEMENT

Performance management is important for an organization, specifically for the circumstances of Kosovo enterprises, as it helps organizations ensuring employees are working hard to contribute to achieving the organization's mission and objectives.

Performance management sets expectations for employee performance and motivates employees to work hard in ways that is expected by the organization. Moreover, performance management system provides a completed and professional management process for organizations to assess the performance results of organizations and employees, and many of Kosovo enterprises must learn and practice performance management system. Therefore, improving employee performance by using performance management system is a way to improve organizational performance. So, in this research study, we investigate the relationship between performance management system and employee performance empirically.

3. OBJECTIVES OF THE STUDY

The measurement of organizational performance is not easy for business organizations with multiple objectives of profitability, productivity, employee satisfaction, employee development and growth. Meanwhile, financial measures have been traditionally conceptualized as performance; this study proposes a broader construct that incorporates non-financial measures such as productivity, quality, employee satisfaction and development, satisfaction, etc.

The main object of the study is to examine the relationship between empowerment and performance and the specific objectives are:
1) To find out the impact of attitudes of managers on employees' performance,
2) To suggest the organization to increase the performance of employees.

4. RESEARCH QUESTIONS AND HYPOTHESIS

Work satisfaction experienced by employees will encourage people to give their best to the organization. Organizational behavior of Kosovo managers should be interested in the nature of attitudes and behaviors of their employees towards their work, their careers, and the organi-

zation itself. Employee attitudes and behaviors are very important for achieving both individual and organizational objectives through their performance.

The following research questions are formed based on the literature previously discussed and research gap:

Is there a positive relationship between employee empowerment and performance?
Is there a positive relationship between satisfaction, job involvement and innovation?

In fact, those question seeks to identify realistically what the practices of empowering labor force in Kosovo public sector and SMEs are. In the theoretical part of the review of the bibliography, the views of different authors regarding the empowerment and involvement of personnel in performance matters have been presented.

To understand what is happening in Kosovo's reality, this issue has also been addressed with some of public enterprises and private small and medium-sized enterprises. Of course, it is not easy to answer the questions raised, but the hypothesis formulated on the basis of this issue will help to clarify the reality in the businesses surveyed, and how much priority is given to this process.

The following hypotheses are formulated in the study:

Hypothesis 1: Employee empowerment will have a positive effect on performance,
Hypothesis 2: Empowering employees will have a positive effect on innovation.

5. RESEARCH METHODS, SAMPLING DESIGN AND CONCEPTUALIZATION

The methodology in this study is designed to provide the information needed to achieve the study objectives.

Primary and secondary data were used for the study. Primary data have collected through the questionnaire developed by the researcher after the review of literature. The above hypothesized relationships are tested using data collected through self-administered, structured questionnaires containing essentially close-ended questions and questionnaire will be conducted on a sample of 150 public and private organizations and enterprises in Kosovo, and secondary data were collected from the books reports and journals etc.

The samples for the study were the public sector organizations and some private small and medium enterprise in Kosovo. Thus, the following organizations have been selected for the purpose of the study. The list of these enterprises was made available by Kosovo Tax Administrations, the Agency of Statistics and the Kosovo Business Registration Agency, operating within the Ministry of Trade and Industry, as only institution responsible for registering businesses in Kosovo.

The questionnaire was designed for the opinion of managers and employees about their job. The questionnaire is administered to chief executives and marketing directors, owners or in some cases other directors from selected small and medium companies in Kosovo. The questionnaire is refined in light of the experience.

The study data were processed through statistical methods, mainly linear and logistic methods applied in the SPSS program. The interpretation of the results is illustrated through the inputs in the form of charts and graphs.

The sampling technique involved in this research is a mix of both simple random probability sampling and non-convenience sampling. The point was to select organizations which had a mature HRM process in place and had experienced diverse situations in regard to its employees and human resource management in the organization.

Likewise, the following variables are taken for measuring performance:

- Completion of work within the time,
- Independent work,
- Creativity,
- Innovation,
- Initiative skill,
- Training.

Based on the above variables attitudes and performance were measured and quantified with the five (5) point scale. From the above variables, a conceptual model was formulated to reveal the relationship between the variables and hypotheses testing.

The study is confined only to the selected public sector organizations, and some to private enterprises.

Empowerment, satisfaction and involvement have been considered in the study.

The use of the questionnaire as a means of collecting the data can also bring with it doubts about the honesty of those who responded to the questionnaire, because in some cases the administered questionnaire was used, meaning that the interviewee answered the questions even if they have had their own doubts about them.

The finding and recommendation should be considered within the limitations and the context of the research.

6. RESULTS AND CONCLUSIONS

This study makes an effort to prove its impact on organizational performance in the Kosovo environment. To carry out the necessary analysis of the relationships that are the subject of this study, we have relied on these statistical indicators: the level of significance, which preserves only the statistically important variables in the model; the regression coefficient, through which the substantiation of statistical hypotheses is tested; and analysis of variance by which we have reasoned the reliability of the test.

Hypothesis 1: Employee empowerment will have a positive effect on performance.

Employee empowerment is a broad term that have been variously referred to as involvement, participative management and engagement. It covers different approaches to gain participation in relevant decisions in an organization.

Model	B	Std. Error	Beta	T	Sig
I participate in the process of defining business strategies	2.902 .311	.169 .046	.497	17.123 6.737	.000 .000

The results of the regression analysis for the variables *I participate in the process of defining business strategies*: from the level of significance we can see that this hypothesis is accepted, because, if the participation process in defining the strategic plan by the employees grows by a unit, then this would result in a growth of 3.03% of the overall organizational performance.

Model	Unstandardized coefficients		Standardized	T	Sig.
	B	Std, Error	Beta		
I am actively participating in business planning	2.757 .339	.195 0.51	.505	14.148 6.669	.000 .000

Results for '*I am active participating in business planning*' are presented, whereby it can be seen that active participation in business planning has a positive impact on the organization's performance, as the statistical values are significant to one another. If participation in business enterprise planning increases by 1%, then this increase will affect the overall performance level by 3.39%. Therefore, these variables have a linear relationship with each other**.**

Hypothesis 2: Empowering employees will have a positive effect on innovation.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631[a]	.399	.394	.543
a. Predictors: (Constant), The development of innovation is practice				

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	27.191	1	27.191	92.200	.000[a]
	Residual	40.993	139	.295		
	Total	68.184	140			
a. Predictors: (Constant), The development of innovation is practice						
b. Dependent Variable: Innovation new standard new product process managerial system						

According to the results, the development of innovative practices and new management systems are closely linked with an innovative workforce in Kosovo.

Coefficients [a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.701	.359		7.513	.000
	Involvement of employee in teamwork is an activity	.391	.090	.345	4.331	.000
Dependent variable: Achievement of employee satisfaction						

The level of employee satisfaction has a positive relation with the involvement in various management processes. The formation of workgroups plays a positive role and the results of its application are very good. In the case of Kosovo enterprises these workgroups and the adequate remuneration according to the results of their work, have a positive impact on the overall organizational performance.

As our analysis has shown, there are gaps where much more empirical work needs to be done in Kosovo's case. Managing employee performance is a key part of effective leadership. Research has shown that effective performance management behavior positively impacts employee engagement and results.

The study showed that human resources and processes that are relevant to this field have a major impact on the progress and success of organizations. Managers, leaders and owners of businesses are advised to pay attention to each element or aspect that affects the creation, growth, empowerment, satisfaction and consolidation of human resources in their institutions and enterprises.

It can be concluded that the factors studied to measure the organizational performance proved to be very important factors. These factors are:

- Innovation-based advantage to offer/develop new products/services or adapt them, good customer service and a high level of customer satisfaction,
- Ability to raise and advance the professional skills of employees through trainings or involvement in different workgroups.

Managers engagement for building a positive environment of cooperation and trust between workers and management, means that the vision and mission of the organization should be realized. Therefore, the performance and the results of the work will not be lacking.

Learning encourages and equips employees to make desirable changes to their work behavior.

The effectiveness of organizational structure depends on the involvement of organization members. Communicating the purpose, procedures and participation reward can promote employee involvement and this participation can increase commitment to realization of planned objectives and initiate the innovative ideas.

REFERENCES:

[1] Ahmed, P.K. and Shepherd C.D. (2010). Innovation management: context, strategies, systems and processes, Pearson Education Limited, Harlow.

[2] Amara, N. and Landry, R. (2005). Sources of information as determinants of novelty of innovation in manufacturing firms: Evidence from the 1999 statistics Canada innovation survey, Technovation, 25(3), pp.245-259.

[3] Bartel, C. and Garud, R. (2009). The role of narratives in sustaining organizational innovation, Organization Science, 20(1), pp.107-117.

[4] Bass & Bass (2008). The Bass handbook of leadership: Theory, research, and managerial applications (4th ed.). New York: Free Press

[5] Boon, O. K., Arumugam, V., Safa, M. S., & Bakar, N. A. (2007). HRM and TQM: association with job involvement. Personnel Review, 36(6), 939 - 962.

[6] Brah, S. A., Tee, S. L., & Rao, B. M. (2002). Relationship between TQM and performance of Singapore companies. International Journal of Quality and Reliability Management 19(4), 356–379.
[7] Brymer, R. A. (1991). Employee Empowerment. Cornell Hotel and Restaurant Administration Quarterly, 32(1), 58-68.
[8] Calantone, R.J., Cavusgil, S.T. and Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance, Industrial Marketing Management, 31(6), pp.515-524.
[9] Caldwell., D.F, O'Reilly, C.A., (1990). Measuring person-job fit with a profile- comparison process; Journal of applied Psychology, Vol.75, pp.648-657.
[10] Cho, H. and Pucik, V. (2005). Relationship between innovativeness, quality, growth, profitability, and market value, Strategic Management Journal, 26(6), pp.555-570.
[11] Conger, J., & Kanungo, R. (1988). The Empowerment Process: Integrating Theory and Practice. Academy of Management Review, 13(3), 471-482
[12] Damanpour, F. (1991). Organizational innovation: a meta-analysis of effects of determinants and moderators, The Academy of Management Journal, 34(3), pp.555-590.
[13] Dow, D., Samson, D., & Ford, S. (1999). Exploding the myth: do all quality management practices contribute to superior quality performance? Production and operations management, 8(1), 1-27.
[14] Fotopoulos, C., & Psomas, E. (2009). The impact of „soft" and „hard" TQM elements on quality management results. International Journal of Quality & Reliability Management, 26(2), 150 - 163. Howard, L. W., & Foster, S. T. (1999). The influence of human resource practices on empowerment and employee perceptions of management commitment to quality. Journal of Quality Management, 4(1), 5-22.
[15] Gunday, G., Ulusoy, G., Kılıç, K. and Alpkan, L. (2011)., Effects of innovation types on firm performance, International Journal of Production Economics, 133(2), pp.662-676.
[16] Harris, L C. (2001). Market orientation and performance: objective and subjective empirical evidence from UK companies, Journal of Management Studies, 38(1), 17-43.
[17] Herzberg, F. (2009). One more time: How do you motivate employees? Cambridge, MA: Harvard Business School Press.
[18] Huiban, J.P. and Bouhsina, Z. (1998). Innovation and the quality of labour factor: An empirical investigation in the French food industry, Small Business Economics, 10(4), pp.389-400.
[19] Johannessen, J.A. (2008). Organisational innovation as part of knowledge management, International Journal of Information Management, 28(5), pp.403-412.
[20] Jung, J. Y., & Hong, S. (2008). Organizational citizenship behaviour (OCB), TQM and performance at the maquiladora. International Journal of Quality & Reliability Management, 25(8), 793 - 808.
[21] Jung, J. Y., Wang, Y. J., & Wu, S. (2009). Competitive strategy, TQM practice, and continuous improvement of international project management: A contingency study. International Journal of Quality & Reliability Management, 26(2), 164 - 183.
[22] Kanter, R. M. (1993). Men and women of the corporation (2ed.). New York: Basic Books. Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. Journal of Operations Management, 21(4), 405-435.\
[23] Latham, G. P. (2003). Goal setting: A five-step approach to behavior change. Organizational Dynamics, 32(3), 309-318.
[24] Lawler E.E. (1992). The Ultimate Advantage: Creating the High Involvement Organization, San Francisco; Jossey Basis.

[25] Lawler, E. E. (1992). Total Quality Management and Employee Involvement: Similarities, Differences and Future Directions. Center for Effective Organization University of Southern California, 16(216).
[26] Murphy, G.B., Trailer, J.W., and Hill, R.C. (1996). Measuring performance in entrepreneurship research, Journal of Business Venturing 36(1), pp.15-23.
[27] Nielsen, Jörn Flohr, and Christian Preuthun Pedersen, 2003. The Consequences and Limits of Empowerment in Financial Services. Scandinavian Journal of Management 19(1): 63-8
[28] Patah, M. O. R. A., Radzi, S. M., Abdullah, R., Adzmy, A., Zain, R. A., & Derani, N. (2009). The Influence of Psychological Empowerment on Overall Job Satisfaction of Front Office Receptionists. International Journal of Business and Management 4(11), 167-167.
[29] Powell, T. C. (1995). Total quality management as competitive advantage: A review and empirical study. Strategic Management Journal, 16(1), 15-37.
[30] Rosenbusch, N., Brinckmann, J. and Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs, Journal of Business Venturing, 26, pp.441-457.
[31] Rubera, G. and Kirca, A., (2012)., Firm innovativeness and its performance outcomes: A meta-analytic review and theoretical integration, Journal of Marketing, 76(3), pp.130-
[32] Samat, N., Ramayah, T., & Saad, N. M. (2006). TQM practices, Service Quality, and Market Orientation: Some empirical Evidence from a Developing Country. Management Research News, 29(11), 713 – 728. Singh, R. K. (2011). Analyzing the interaction of factors for success of total quality management in SMEs. Asian Journal on Quality, 12(1), 6 - 19.
[33] Thomas, K., & Velthouse, B. (1990). Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. Academy of Management Review, 15, 666-681.
[34] Trivellas, P., & Santouridis, I. (2009). TQM and innovation performance in manufacturing SMEs: the mediating effect of job satisfaction. Paper presented at the IEEE International Conference on Industrial Engineering and Engineering Management, December 2009.
[35] Ueno, A. (2010). What are the fundamental features supporting service quality? Journal of Services Marketing, 24(1), 74 - 86.
[36] Ugboro, I. O., & Obeng, K. (2000). Top management leadership, employee empowerment, job satisfaction, and customer satisfaction in TQM organizations: an empirical study. Journal of Quality Management, 5(2), 247-272.
[37] Velnampy. T. (2006). Satisfaction and organizational commitment on the impact of performance, 10th annual international symposium; Growth and challenges for 21st century; p. 338.
[38] Verma, 0.P., (1985) Personality correlates of Job involvement, Perspectives in Psychological researchers, vol 8, No.2, pp. 25 -38.
[39] Vouzas, F., & Psychogios, A. G. (2007). Assessing managers' awareness of TQM. The TQM Magazine, 19(1), 62 - 75.
[40] Wolff, J.A. and Pett, T.L. (2006). Small-firm performance: modeling the role of product and process improvements, Journal of Small Business Management, 44(2), pp.268-284.

THE STAKEHOLDERS: A COMPARISON BETWEEN IAS/IFRS AND ITALIAN OIC STANDARDS FOR FINANCIAL REPORTING

Annalisa Baldissera[1]

DOI: https://doi.org/10.31410/EMAN.2019.205

Abstract: *The scope of this paper is to analyze - from a critical point of view - the financial statements, with particular regard to their main recipients and to their effective adequacy in satisfying the information needs of stakeholders. The paper aims to contribute to the current debate on the ability of financial reporting to be really useful and effective for stakeholders. It is important to note that in the last ten years the external information has increased considerably, moving from mere accounting and financial information towards several profiles, as sociality, environment, sustainability, corporate governance, risk policies and, more generally, non-financial data. This new direction highlights the growing need for information that the recipients of financial statements express, so that it is extremely important to verify if this need is really satisfied. In addition, given that the Italian accounting standards, settled by OIC (Italian Accounting Body), are very different from the International IAS/IFRS, the paper uses a comparative method, based on the reconstruction, for each of them: a) of the type of information provided; b) of the type of recipients to whom they are addressed. The comparison is made through the analysis of the conceptual framework of the two groups of principles, considering that the main difference between IAS/IFRS and OIC standards is that the former are mostly derived from practice and use a problem-solving approach, typical of Anglo-Saxon empiricism; while the latter are based on an opposite view, namely on the construction of an accounting theory aimed at guiding the practice. According to the majority doctrine, there is a typical and well-known difference between the two groups of principles: the IAS/IFRS standards are based on fair value and are mainly investor-oriented, while the OIC standards are based on historical cost and are mainly creditor-oriented. In addition to this distinction, the paper proposes a further one, based on the differentiation between informational effects and management effects. In particular, the accounting conservatism typical of prudent countries, like Italy, produces, above all, management effects due to the fact that it prevents the distribution of unrealized earnings, so protecting company's capital. On the contrary, an opposite effect is produced by IAS/IFRS, since the use of fair value can provoke the emersion of presumed but not effective profits, in some cases distributable.*

Keywords: *stakeholders, financial reporting, accounting standards.*

---

1. PURPOSE OF THE STUDY AND EXPECTED BENEFITS

The aim of this paper is to analyze, from a critical perspective, the effective capability of the financial statements in informing their main recipients.

For this purpose, it is necessary to put a preliminary distinction between external and internal users of financial statements, being their information needs very different.

In particular, this paper focuses on external users, since, normally, they can only rely on public data and do not have the power to influence information.

---

1 University of Brescia, Department of Law, via San Faustino, 41, 25122 Brescia, Italy

Furthermore, the external recipients use financial information in a different way with respect to the internal subjects: the former need to understand the economic conditions of the company, while the latter use the financial statements for corporate governance strategies.

The expected benefits of this study are to provide a contribution to the literature on the subject and to offer some different points of view, potentially useful for the interpretation of the problems related to the information capability of the financial statements.

2. THE METHODOLOGY

The methodology used here is based on the comparison between the international accounting standards IAS/IFRS and the Italian OIC standards, since each of them sets different rules and principles able to produce significant consequences for the readers of the financial statements.

Since the comparison is aimed at verifying the effective disclosure of the financial statements, the attention is focused, first of all, on the critical review of the concept of *stakeholders*, that historically dates back to the 1960s and is still widely treated by doctrine.

Secondly, the study focuses on the ability of the financial statements to satisfy the information needs of stakeholders: the real problem, in fact, is not the construction of a list as complete as possible of subjects interested in financial statements; much more important, as it is believed here, is, in actual fact, the analysis of *the company's image that emerges from the different legal frameworks governing the preparation of the financial statements.*

Only this starting assumption can help to really understand the effectiveness of financial reporting.

3. THE CONCEPT OF STAKEHOLDERS

Already starting from the Italian Zanardelli commercial code, the first to contain a minimal, but autonomous, regulation of the financial statements, the matter of the recipients of the accounting information has involved - and often opposed [1] - a plurality of disciplines.

Among these disciplines, the economic ones (accounting theories) [2] - [3] and the legal ones (commercial law theories) [4] - [5], brought out a multiplicity of views, also powered - it is believed here - by the absence of a normative indication of the subjects and of the goals, "never clearly explicit" [6], towards which the financial statements are mainly oriented [7].

In Italy, this lack occurred both in the pre-unification codes and in the subsequent ones, monarchical and republican, including the Italian Civil Code today in force.

Starting from the second half of the 1960s [8] - [9], the problem has found a solution, so to speak "conciliatory" (although not universally shared), thanks to the introduction of the comprehensive concept of "*stakeholders".*

From then to today, this concept has been able to bring together all the subjects in various ways interested in company's events, so favoring the reconciliation of the two main approaches to the problem: the *legal views* [10] and the *economic* interpretations.

With regard to the Italian legal views, at the beginning of the 20th century, the majority doctrine tended to consider non-shareholders as outsiders, who were *consignees of the financial statement only in an indirect way, and, above all, only after its approval by the shareholders' meeting*. Further on, the evolution occurred in the second half of the 20th century led to the prevailing opinion, still dominant today, according to which the *social creditors* are the main recipients [11] - [12] of financial reporting.

In relation to the *economic interpretations*, it is important to note how, especially in the last fifty years, they have gradually included, among the users of the financial statements, the holders of the most diverse interests, not only economic [13] - [14].

The problem, however, is not easy to solve and *often it is incorrectly set*: as much as the group of stakeholders could be complete, it is obtained through the selection, among the potential users of the financial statements, of only those with a specific interest in the company.

It follows that the concept of stakeholders represents, in actual fact, an open and temporary whole, whose borders change from time to time. Therefore, as it is believed here, the theoretical and scientific value of this concept does not lie in its universalism, since any classification inevitably tends to be a contingent and situational one, depending on the changing empirical conditions.

On the contrary, given that the function of the financial statements is to inform about the company, to assess its effectiveness it is necessary to start from a different point of view, i.e. from the consideration of the *type of company's image wanted by the legal system within which the financial statements must be drawn up.* In this way, and also in a strategic-management perspective [15] - [16], it is possible to verify if the information needs of the stakeholders are really satisfied.

4. A COMPARISON BETWEEN ITALIAN OIC AND INTERNATIONAL IAS/IFRS

With regard to the Italian context, it is first necessary to distinguish between non-listed companies, which apply the OIC standards, and listed companies, which instead are required to apply the international standards IAS/IFRS.

For non-listed companies, the principles of the civil code, together with the OIC standards, have as their main purpose the protection of the company's creditors, while for listed companies partly different considerations must be done, since the primary aim of IAS/IFRS is to inform current and potential investors [17].

One of the most important principles on which the Italian civil code and the OIC standards are based is represented by the accounting conservatism, which, in continental Europe, implies the adoption of the *historical cost* as evaluation criterion.

On the contrary, the IAS/IFRS standards are more interested in the representation of the company's market price and, for this purpose, generally require the adoption of the *fair value* criterion.

The contrast between historical cost and fair value [18] - [19] - [20], as well as that between *income tradition* of OIC and *patrimonial approach* of IAS/IFRS [21], are well known in accounting doctrine and represent the main characteristics that distinguish the civil-law countries from the common-law ones.

In relation to these contrapositions, it is useful to suggest here a further classification, which can be considered as a corollary of the main distinctions mentioned above.

In particular, the distinction proposed here is based on the analysis of some *antithetical effects* that the two groups of standards are able to produce, due to the diversity - both conceptual and substantial - of their frameworks.

These effects are classified here as *managerial effects* and *information effects*, deriving this distinction from the ascertainment that, on the one hand, the OIC standards pursue the *protection* of financial statement recipients, while, on the other hand, the IAS/IFRS standards are more focused on information of the recipients themselves, even regardless of their safeguard.

In this sense, the civil and OIC principles exercise, above all, managerial effects, since they aim to promote, through the prudent evaluations, a conservative management of the company. The protection of social creditors is realized through the defense of the company's capital from the dilutions [22] - [23] - [24] caused by the distribution of non-existent profits.

In this regard, it is important to remember that one of the most significant consequences of the Italian accounting conservatism is the prohibition of representing unrealized profits in the financial statements.

This inviolable principle - whose exceptions are strictly limited to the cases established by law - is based on four main rules:
a) the underestimation of the assets (through their evaluation at historical cost);
b) the overvaluation of liabilities (through their evaluation at nominal value);
c) the recording of all costs, even if only presumed or foreseeable (through provisions for risks and charges);
d) the recording of only effectively realized revenues and profits (arising from occurred commercial transactions).

These basic rules - if correctly applied - are able to inhibit the recognition in the financial statements of latent surplus values, only foreseen or estimated, thus preventing the distribution of fictitious dividends.

The information effects of the civil code principles are therefore the result or the consequence of *a legal system that aims, first of all, at preserving the company liquidity.*

On the contrary, the above relationship is reversed in the case of the IAS/IFRS principles, given that - also in consideration of the different economic context (listed and large companies) in which they were drawn up - *their primarily aim is to produce useful information for investors* [25] - [26] - [27], *rather than managerial effects for the company.*

It follows that, in this second case, the managerial effects, such as, for example, the distribution of the potential profits emerging from the evaluation at fair value, are the consequence of an approach that privileges the information intended for financial markets. Furthermore, even in the event that potential profits are not distributable, valuations at current prices generally reinforce the image of the company and make it more attractive to investors.

However, it is not at all obvious that this informational advantage also ensures investor protection, especially when large or unrealistic overvaluations [28], or simple revaluations [29] - [30], are able to cause false expectations in savers.

5. CONCLUSIONS

Some conclusions derive from the above considerations.

First of all, the correct verification of the effective utility of the financial statements in informing their recipients requires an adequate understanding of *the legal framework on which the accounting standards are based*.

It is therefore inevitable that not all stakeholders can be satisfied with the same effectiveness: the OIC-based financial statements are particularly useful for creditors, but less suitable for investors, while, on the contrary, the IAS/IFRS-based financial statements are more significant for investors, but less appropriate for social creditors.

Secondly, there is a further point of view through which the problem of stakeholders can be observed: the financial statements features are relevant, in fact, not only in information terms, but also for their managerial effects, which, in continental European countries, differ widely from those of the Anglo-Saxon world.

It follows that a new distinction could be proposed within the group of the stakeholders: those that can be satisfied vs. those that can't be contented, depending on the legal-accounting framework on which the financial statements are based.

Given the above, *only a supranational legal-accounting system able - if ever possible - to satisfy all information needs could make this distinction superfluous*.

Finally, this last consideration opens up a further cause of debate, since it is also necessary to understand to what extent transparency can reach stakeholders, without affecting the legitimate right of the company to secrecy and confidentiality.

The problem arises above all for listed companies that, being open to the market, must offer maximum disclosure to investors, and, at the same time, protect strategic information from the actions of competitors.

In addition, it must be remembered that even for non-listed companies requests for information from stakeholders have increased significantly in Italy over the last ten years.

This evolution shows the current trend towards increasingly complex information, with respect to which the financial statements have become an essential disclosure tool.

However, we must not underestimate the risk that the growing request for information will turn into redundant and dispersive data, which hide, rather than highlight, significant information for stakeholders.

REFERENCES

[1] Libonati, B. (2013) *Scritti giuridici. Volume I. Impresa e società. Concorrenza e mercato. Gruppi. Bilanci e contabilità*, Giuffrè, Milano, pp. 832-833.
[2] De Gobbis, F. (1931) *Il bilancio delle società anonime,* Società Anonima Editrice Dante Alighieri, Milano.
[3] Onida, P. (1974) *Il bilancio d'esercizio nelle imprese. Significato economico del bilancio. Problemi di valutazione,* Giuffrè, Milano.
[4] Messineo, F. (1958) *Studi di diritto delle società*, Giuffrè, Milano.
[5] Pescatore, S. (2009) *Strutture societarie e autonomia contrattuale. Saggi*, Giuffrè, Milano.
[6] Onesti, T., Romano, M., Taliento, M. (2016) *Il bilancio di esercizio nelle imprese. Dal quadro concettuale di riferimento alle nuove regole contabili nazionali e internazionali*, Giappichelli, Torino, p. 121.
[7] Capaldo, P. (2012) Sulla nozione di reddito distribuibile in Fortuna, F. (ed.), *Liber amicorum per Umberto Bertini. L'uomo, lo studioso, il professore*, FrancoAngeli, Milano, pp. 198-208.
[8] Ansoff, H. I. (1965) *Corporate strategy: an analytical approach to business policy for growth and expansion*, Mc Graw-Hill, New York.
[9] Freeman, R. E. (1984) *Strategic Management. A Stakeholder Approach*, Pitman, Boston.
[10] Denozza, F. (2010) L'interesse sociale tra «coordinamento» e «cooperazione» in AA. VV., *L'interesse sociale tra valorizzazione del capitale e protezione degli stakeholders. In ricordo di Pier Giusto Jaeger. Atti del convegno Milano 9 ottobre 2009*, Giuffrè, Milano, pp. 9-44.
[11] Abriani, N. (2012) *Diritto delle società*, Giuffrè, Milano.
[12] Colombo, G. E. (1965) *Il bilancio di esercizio delle società per azioni*, Cedam, Padova.
[13] Carrol, A. B., Buchholtz, A. K. (2015) *Business and Society. Ethics, Sustainability, and Stakeholder Management*, Cengage Learning, Stamford.
[14] Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B., Del Colle, S. (2010) *Stakeholder Theory. The State of the Art*, Cambridge University Press, New York.
[15] Eskerod, P., Jepsen, A. L. (2013) *Project Stakeholder Management*, Gower, Farnham.
[16] Wasieleski, D. M., Weber, J. (eds.) (2017) *Stakeholder Management*, Emerald, Bingley.
[17] Mella, P., Velo, D. (eds.) (2007) *Creazione di valore, Corporate Governance e informativa societaria*, Giuffrè, Milano, p. 560.
[18] Caratozzolo, M. (2006) *Il bilancio d'esercizio*, Giuffrè, Milano.
[19] Comoli, M., Corno, F., Viganò, A. (2006) *Il bilancio secondo gli IAS*, Giuffrè, Milano.
[20] Fortunato, S. (2007), Dal costo storico al fair value: al di là della rivoluzione contabile in AA. VV., *IAS/IFRS. La modernizzazione del diritto contabile in Italia*, Giuffrè, Milano, pp. 1-18.
[21] Saita, M., Saracino, P., Provasi R., Messaggi S. (2012) *Evoluzione dei principi contabili nel contesto internazionale*, FrancoAngeli, Milano.
[22] Allegrini, M., D'Onza, G., Mancini, D., Garzella, S. (2003) *Le frodi aziendali. Frodi amministrative, alterazioni di bilancio e computer crime*, FrancoAngeli, Milano.
[23] Cavalieri, E., Ferraris Franceschi, R. (2010) *Economia aziendale*, Giappichelli, Torino.
[24] Ferrero, G. (1966) *La valutazione economica del capitale d'impresa*, Giuffrè, Milano.
[25] Allegrini, M. (2013) *I principi contabili internazionali. Caratteristiche, struttura, contenuto*, Giappichelli, Torino.
[26] Epstein, B. J., Jermakowicz, E. K. (2008) *IFRS Policies and Procedures*, Wiley, Hoboken.
[27] Lionzo, A. (2005) *Il sistema dei valori di bilancio nella prospettiva dei principi contabili internazionali*, FrancoAngeli, Milano.
[28] Bensadon, D., Praquin, N. (eds.) (2016) *Essay in Honor of Professor Jacques Richard. IFRS in a Global World. International and Critical Perspectives on Accounting*, Springer, Heidelberg-New York-Dordrecht-London.
[29] Montrone, A. (ed.) (2008), *Aree di criticità nell'applicazione di alcuni principi contabili internazionali. Lo IAS 38 - Intangible Assets e l'IFRS 3 - Business Combinations*, FrancoAngeli, Milano.
[30] Parker, D. (2016) *International Valuation Standards. A guide to the evaluation of real property assets*, Wiley, Chichester.

INDEPENDENCE OF PUBLIC PROCUREMENT AUTHORITY*

Mária T. Patakyova[1]

DOI: https://doi.org/10.31410/EMAN.2019.211

Abstract: *Nowadays, many countries suffer from loss of confidence of their citizens. Huge protests are spread throughout many states even in the EU. The time has come to analyze the principles of good governance in order to make states trustworthy organizations again. This paper aims to contribute to the discussion by focusing on independence of state authorities. As public spending is often a cause of citizens' dissatisfaction with governments, the independence of public procurement authorities shall be analyzed in particular. This paper deals with requirements for independence and applies them to a chosen public procurement authority, the Office for Public Procurement, which is the central authority for administration of public procurements in the Slovak Republic. Since there have been many affairs related to misspending of public resources, the de facto independence of the Office for Public Procurement can be questioned. Therefore, the paper puts forward the legal framework in which the Office for Public Procurement operates, and discusses its functioning in practice.*

Keywords: *Public procurement, Office for Public Procurement, Independence, De facto independence*

1. INTRODUCTION

We can observe the increase of lack of confidence towards states all around the world. Arguably, better functioning of the state apparatus might, at least partially, increase the confidence of citizens towards the state. This paper deals with public procurement authority in the Slovak republic, the Office for Public Procurement (the "Office"), and its independence. It is assumed that independence of this institution may significantly change the course of public spending in Slovakia. Since the scope of this paper is quite limited, we will mainly focus on the leadership of the Office and its *de jure* independence.

Hence, the paper is organized as follows. First, the various concepts of independence will be presented, based on an OECD recommendation as well as opinions of scholars. Second, the Office for Public Procurement will be outlined, in order to assess whether it may be seen as independent. Third, a recent case related to public procurement will be discussed in order to assess the de facto independence of the Office for Public Procurement.

2. VARIOUS CONCEPTS OF INDEPENDENCE

In general, we may distinguish between several basic concepts of independence each dealing with a different aspect. First, we can recognize the political independence, i.e. from politicians; and the functional independence, i.e. from business. Companies and firms usually stand in the position of regulated subjects.

---

* This paper was supported by a Grant project of "Agentúra na podporu výskumu a vývoja v rámci projektu č. APVV-17-0641: Zefektívnenie právnej úpravy verejného obstarávania a jej aplikácie v kontexte práva Európskej únie.".

1 Comenius University in Bratislava, Faculty of Law, Institute of European Law. Šafárikovo nám. č. 6, 810 00 Bratislava, Slovakia

Second, one may distinguish between the *de jure* and the *de facto* independence. The former looks into the set of legal rules; hence, it assesses the legislative framework based on which the institution operates. The latter focuses on the functioning of the institution in real world. It may happen that the *de jure* independence seems to be on a sufficient level, however, the real functioning of the institution is under influence of, for instance, the government.

In 2017, OECD issued a document dedicated to culture of independence [1]. It presents five areas by which independence should be safeguarded, namely clarity and responsibility, transparency and accountability, financial independence, independence of leadership, and staff behavior. In relation to the fourth aspect, the procedure of nomination, appointment and dismissal of the institution's leader is significantly important. Conflict of interests with both politicians and business sphere should be precluded [1].

Naturally, the OECD is not the only one exploring independence of institutions. Many scholars have conducted deep analysis of institutions selected by them, whereas they paid attention to what may be a positive and what a negative element of their independence [2] - [4]. Due to limited scope of this paper, we will focus on work of one particular - academic.

Zemanovičová assessed the independence of Antimonopoly Office of the Slovak Republic, which is the national competition authority in Slovakia. For the assessment of the public procurement authority, which will be conducted in the next chapter, it shall be highlighted that she was not satisfied with lack of requirements for a transparent selection procedure for the leader of the institution or members of the appeal body of the institution. She also pointed out the possible risks connected with the re-election for the position and monocratic decision making on the first instance of the institution. It was also proposed by her that an announcement mechanism for meeting with persons from political or business environment should be introduced.

3. LEGAL FRAMEWORK OF THE OFFICE FOR PUBLIC PROCUREMENT

It is interesting to note that there is no explicit legal provision which would describe the Office as independent. This is so regarding the Act on public procurement [5] as well as Directive on public procurement [6], Directive on the award of concession contracts [7], Directive on procurement by entities operating in the water, energy, transport and postal services sectors [8].

As indicated above, we will mainly focus on the leadership aspect of the independence provided in Sections 140-146 of the Act [5]. The head of the Office is the President of the Office, who is nominated by the government, however, he or she is elected by the National Council of the Slovak Republic, i.e. the Slovak parliament. It is undoubted that the appointment by the parliament is to be seen as a positive factor, especially due to the fact that it is a collective body. However, it cannot be omitted that the Slovak Republic is a parliamentary democracy, hence, as a rule, the government has the support of the majority of the parliament.

None the less, the independence of the President of the Office is supported by the fact that the publicity of the call for "registration" of the candidates for the function is provided by law. The independence is also put on a higher level also thanks to public hearings of candidates for the function and clearly stated reasons for the dismissal of the President. The term of the presidency is set for five years, which is also positive. On the other hand, the independence of the President is undercut by the fact that he may be re-elected for the function.

As far as the requirements for the person of the President are concerned, one has to admit that these requirements are brief. The legislation prescribes its separation from the political parties. None the less, there are no explicit requirements for work experience or formation of candidates for the position of President.

In relation to the two Vice-Presidents of the Office, similar provisions take places. The major difference is in proposing and appointing of them. As oppose to the President of the Office, the proposal for candidates comes from the President of the Office and the Vice-Presidents are appointed by the government instead of the parliament. The President of the Office also determines the issues which each of the Vice-Presidents shall be responsible for, as well as the order in which they substitute him.

Apart from the leadership of the Office itself, there is also another body which plays vital role in the functioning of the Office. The Council of the Office is the appeal body against the first-instance decisions of the Office. It consists of the President, the Vice-Presidents and six other members. The President is also the president of the Council, and the same applies to the Council's vice-presidents. Let us now zoom in on the appointment procedure of these other members.

The procedure is to great extent similar to the appointment of the President or the Vice-Presidents. The other members are appointed by the government. The manner of selection of them is specified in the regulation of the government pursuant to Section 143 para 1 of the Act [5]. It should be taken positively that the other members cannot be employees of the Office. This means that two-thirds of the Council are occupied by persons who are outside of the Office. The term of the other members is for five years.

As to the personal requirements, the other members shall be citizens of the Slovak Republic, have full legal capacity and generally no crime record. Moreover, they shall have a university master degree and at least five years of practice in the public procurement sector. Therefore, eventually, there are some requirements for education and professional experience. However, it cannot be omitted that they are not leaders of the institution itself, only members of the appeal body.

4. FUNCTIONING OF THE OFFICE FOR PUBLIC PROCUREMENT

In order to discuss de facto independence, this paper presents one recent case which, first of all, presents the real powers of the Office; second, it casts doubts on the independent functioning of the Office. In relation to this point it must be highlighted that presentation of this case has no intention to state that any influence was done on the Office in practice. The author would like to stress that she only presents the publicly known facts about the case and she does not take any normative position in relation to it.

Recently, a Slovak economic journal published an article named "The Country of Over-Charged Stadiums" [9]. The article describes a public procurement which was conducted by the Slovak Football Association in relation to the grandstands. It was related to renovation of football stadiums in various Slovak towns. The Association was procuring a framework contract for the provider of grandstands, so that each town did not have to procure the grandstands on its own. This, in itself, does not represent a problem. However, what seemed a little problematic was the fact that there were only two tenders in the public procurement procedure; and one of them was excluded. Moreover, it was the tenderer with the allegedly lower tender, i.e. the lower proposal.

The Association, as the contracting authority, excluded the tenderer due to his alleged insufficient experience and alleged insufficient proof of financial standing. The tenderer lodged a complaint to the Office of Public Procurement. The Office confirmed the complaint towards the first reason for exclusion, however, the Office was not satisfied with the reasoning of the tenderer towards the second reason. Therefore, all in all, the exclusion of the tendered by contracting authority was upheld by the Office on the first instance.

The core of the legal dispute related to insufficient proof of financial standing was related to the fulfilment of the condition whether it was objectively impossible for the tenderer to provide a loan commitment. The excluded tendered did not have such commitment, as he claimed that it had not been possible for him to get such commitment from any bank approached by him. Instead of the commitment, the tenderer provided an information on the opening of a current-account credit facility for an amount exceeding EUR 5 000 000, and a sworn statement that he would have, in a case of succeeding in the public procurement, sufficient amount of money at his disposal.

The contracting authority did not accept this as a sufficient proof of financial standing, which was upheld by the Office for public procurement on the first instance. The excluded tenderer lodged an appeal against this decision; however, the Council of the Office did not change the first instance decision. The excluded tenderer was not willing to surrender; therefore, he lodged an action against the appeal decision of the Council of the Office. The Regional Court in Bratislava dismissed the action, hence, the excluded tenderer appealed from this court decision to the Supreme Court of the Slovak Republic. In these proceedings, the Supreme Court decided to refer a preliminary question to the Court of Justice of the EU based on Article 267 TFEU. The Court of Justice issued its ruling [10], based on which the Supreme Court ruled that the Regional Court of Bratislava, and therefore also the previous assessments, were based on error in factual as well as legal assessment of the case. The Supreme Court held that the documents submitted by the excluded tenderer were suitable to fulfil the requirement of financial standing. [11] Thus, it was eventually confirmed that the tenderer was wrongfully excluded.

5. CONCLUSION

In order to strengthen the confidence of individuals towards a state, it is important for state to function in a proper manner. As presented by this paper, public procurement authorities play crucial role in efficient public spending. Their independence should be of particular interest. As it flows from the paper, there are many points on which the independence of the Office for Public Procurement might be improved. *De jure* independence of the Office is not perfect and, unfortunately, there are cases based on which the Office does not *appear* as an independent institution [1]. Naturally, to reach the level on which an institution *seems* independent is difficult, however, that is the point to which the legislator should aim.

REFERENCES

[1] OECD (2017), *Creating a Culture of Independence: Practical Guidance against Undue Influence*, The Governance of Regulators, OECD Publishing, Paris. https://dx.doi.org/10.1787/9789264274198-en.
[2] Alves, S., Capiau J, Sinclair A. (2015) *Principles for the Independence of Competition Authorities*, Competition Law International 11(1), pp. 13-27.
[3] Lavrijssen S., Ottow A. (2012) *Independent Supervisory Authorities: A Fragile Concept*, Legal Issues of Economic Integration 39(4), pp. 419-445.
[4] Zemanovičová D. (2017) *Protimonopolný úrad*, Efektívnosť právnej úpravy ochrany hospodárskej súťaže – návrhy de lege ferenda, Univerzita Komenského v Bratislave, Právnická fakulta, Bratislava, pp. 48-54.
[5] Act No. 343/2015 Coll. on public procurement, as amended.
[6] Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC.
[7] Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts.
[8] Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC.
[9] Kováč, J. (2019), Krajina predražených štadiónov: Čo odhalila malá sonda do postupov SFZ, Trend 03/2019, News and Media Holding. [online 2019-04-11] https://www.etrend.sk/trend-archiv/rok-2019/cislo-3/krajina-predrazenych-stadionov.html
[10] Court of Justice of the European Union, C-76/16 INGSTEEL spol. sro and Metrostav as v Úrad pre verejné obstarávanie, 13 July 2017.
[11] Najvyšší súd Slovenskej republiky, No. 1Sžf/67/2015, 17 October 2017.

OTPREMA ROBE U REPUBLICI HRVATSKOJ PRIJE I POSLIJE ULASKA U EUROPSKU UNIJU

SHIPPING OF GOODS IN THE REPUBLIC OF CROATIA BEFORE AND AFTER ENTRY INTO THE EUROPEAN UNION

Snježana Krejči[1]
Helena Šlogar[2]

DOI: https://doi.org/10.31410/EMAN.2019.217

Sažetak: *Republika Hrvatska (HR) od 1. srpnja 2013. godine postala je 28. članica Europske unije i time se mijenjaju uvjeti obavljanja trgovine i transporta između poslovnih subjekata sa zemljama članicama Europske unije (EU). Svrha ovog rada je komparacija izvoza i otpreme robe od proizvodnje na lokaciji u Republici Hrvatskoj do skladištenja robe u drugoj zemlji Europske unije prije i poslije ulaska Republike Hrvatske u Europsku uniju. Unutar poslovne logistike transport je djelatnost kojom se omogućuje premještanje robe kroz distribucijski i logistički sustav do skladišta u drugoj zemlji EU. U skladu sa europskom i nacionalnom zakonskom regulativnom provodi se trgovina i sa trećim zemljama nečlanicama EU. Komparativna analiza u ovom radu pokazala je značajne promjene u otpremi robe nakon što je Republika Hrvatska postala članica EU. Carinska unija omogućava da se promet robe i usluga unutar Europske unije obavlja kao unutarnji promet zajednice.*

Ključne riječi: *logistički sustav, poduzeće, izvoz, uvoz, otprema robe, skladište*

Abstract: *On July 1, 2013 the Republic of Croatia became the 28th member of the European Union and that caused changes in the conditions of trade and transport between business subjects with the European Union (EU) member states. The purpose of this paper is the comparison of export and shipping of goods, from production in Croatia to storage in another European Union member state, before and after Croatia's accession to the European Union. In terms of business logistics, transport is an activity which enables shifting of goods through the distribution and logistics system to the warehouse in another EU country. In accordance with the European and national legislation, trade with third party countries – non-EU members – also takes place. Comparative analysis in this study has shown significant changes in shipping of goods after Croatia became a member. The customs union allows goods and services traffic inside the European Union to be carried out as the internal traffic of the community.*

Keywords: *logistics system, company, export, import, shipping of goods, warehouse*

1. UVOD

U ovom radu analizira se i komparira proces otpreme robe prije i poslije ulaska Republike Hrvatske u Europsku uniju na primjeru poduzeća „XY“ od proizvodnje na lokaciji u Republici Hrvatskoj do skladištenja robe u drugoj zemlji Europske unije, Austriji. Ulaskom Republike Hrvatske u Europsku uniju značajno se mijenjaju propisi vezani za uvoz, izvoz, te otpremu i primitak robe.

1 Selk d.d. Kutina, Slavonska 27, Kutina, Republika Hrvatska
2 Sveučilište Libertas, Trg J.F. Kennedya 6b, Zagreb, Republika Hrvatska

2. DEFINIRANJE BITNIH POJMOVA ZA PROCES UVOZA I IZVOZA ROBE

Pri razumjevanju procesa potrebno je razlikovati preferencijalo (povlašteno) i nepreferencijalno (nepovlašteno) podrijetlo robe. Roba koja ima preferencijalno podrijetlo ima povlašteni status prilikom uvoza odnosno izvoza iz jedne zemlje u drugu zemlju i to zavisi o sklopljenim bilateralnim sporazumima između te dvije zemlje ili skupine zemalja. Na primjer, Europska unija (EU) ima potpisan sporazum sa drugom zemljom u koju se izvozi roba. Hrvatsko poduzeće „XY" namjerava iz Bosne i Hercegovine (BIH) uvesti neku robu. Ukoliko je ta roba u BIH stekla preferencijalno podrijetlo, tada hrvatsko poduzeće „XY" uvoznik na tu robu neće platiti carinsku stopu, koju bi platilo da roba nema preferencijalno podrijetlo. To preferencijalno podrijetlo izvoznik iz BIH treba dokazati hrvatskim carinskim vlastima prilikom carinjenja robe. Preferencijalno podrijetlo se dokazuje popunjavanjem i ovjeravanjem obrasca EUR1 [1] ili davanjem izjave na računu ukoliko se radi o robi čija vrijednost ne prelazi 6.000 EUR-a vrijednosti ili izvoznik ima povlašteni status „ovlaštenog izvoznika". Da bi roba stekla preferencijalno podrijetlo i da bi izvoznik mogao potpisati takvu izjavu roba mora biti cjelovito dobivena na području države iz koje se izvozi. Ukoliko to nije slučaj tada se trebaju zadovoljiti određena pravila iz „liste prerade" za određeni tarifni broj robe [2]. Dakle, svako poglavlje iz carinske tarife ima određena pravila koje se radnje trebaju izvršiti da bi roba dobila status preferencijalnog podrijetla. Nepreferenencijalno podrijetlo ima roba koja nije ispunila neki uvjet i na nju se plaća puna carina prilikom uvoza u neku drugu državu [3].

3. IZVOZ I UVOZ ROBE PRIJE I POSLIJE ULASKA REPUBLIKE HRVATSKE U EUROPSKU UNIJU

Pojmovi „uvoz" i „izvoz" se primjenjuju kada govorimo o robi koju iz jednog carinskog područja trebamo uvesti ili izvesti u drugo carinsko područje i koja nema status robe zajednice. Takva roba naziva se T1 roba tj. ona koja nije stekla status domaće robe jer nije ocarinjena na carinskom području EU (npr. roba iz Japana). Takvu se robu treba staviti u neki od dozvoljenih carinskih postupaka: kao npr. konačno carinjenje robe koje se naziva i puštanje robe u slobodan promet ili privremeni uvoz ili izvoz ili neki drugi carinski postupak [4]. Zakonska regulativa do ulaska Republike Hrvatske u Europsku uniju obuhvaćala je: Carinski zakon Republike Hrvatske, Uredbu za provedbu Carinskog zakona i Uredbu o carinskoj tarifi koju donosi zakonodavac za svaku kalendarsku godinu. Od 1. srpnja 2013. godine Republika Hrvatska je članica Europske unije i više ne postoji dotadašnji odnos između EU i HR. Odnos između Republike Hrvatske i ostalih carinskih unija je isti kao što je i odnos između EU i tih carinskih unija. Republika Hrvatska je ulaskom u EU preuzela sve pozitivne zakonske propise, sve bilateralne i multilateralne potpisane ugovore koje je ispregovarala i potpisala EU. Istovremeno, prestali su važiti svi autonomni Zakoni koje je Republika Hrvatska primjenjivala prije pristupanja u EU. Europska unija je carinska unija, a promet roba i usluga unutar nje vrši se kao unutarnji promet zajednice. Hrvatska napušta sve bilateralne ugovore o slobodnoj trgovini sklopljene sa EU i sa drugim zemljama ne-članicama EU, a preuzima sve ugovore o slobodnoj trgovini koje je EU ispregovarala sa određenim nečlanicama EU. Hrvatska napušta Uredbu o carinskoj tarifi, a dobiva TARIC, (akronim od francuskog naziva za „integriranu tarifu Zajednice" – TarifIntegré Communautaire) Carinski zakonik unije, u koji su ugrađeni i određeni drugi zakoni, koji se moraju ispoštovati prilikom carinjenja robe, što dotadašnja carinska tarifa u Republici Hrvatskoj nije sadržavala. Temeljni carinski propisi koji se primjenjuju ulaskom u EU su: Carinski zakonik Zajednice (CZZ), Uredba Vijeća (EEZ) br. 2913/92 od 12. listopada 1992. godine, kojom se donosi CZZ2, sa svim izmjenama i dopunama; Uredba za provedbu Carinskog zakonika

Zajednice (UPCZZ), Uredba Komisije (EEZ) br. 2454/93 od 2. srpnja 1993. godine, o odredbama za provedbu Uredbe Vijeća kojom se donosi CZZ3, sa svim izmjenama i dopunama; Zakon o provedbi carinskih propisa Europske unije te razni provedbeni propisi i pravilnici. Na primjer, Pravilnik o uvjetima i načinu podnošenja instrumenta osiguranja, Pravilnik o primjeni sustava carinskih kvota, Pravilnik o uvjetima za određivanje službenih mjesta i drugi [5]. Pored toga, osnovna pravila i uvjeti oslobođenja od plaćanja carine regulirani su Uredbom o sustavu oslobođenja u EU-u, Uredba Vijeća Europske unije br. 1186/ 2009 od 16. studenoga 2009. godine o sustavu carinskih oslobođenja u EU-u.

Tablica 1. Razlika propisane zakonske regulative
prije i poslije ulaska Republike Hrvatske u Europsku uniju.

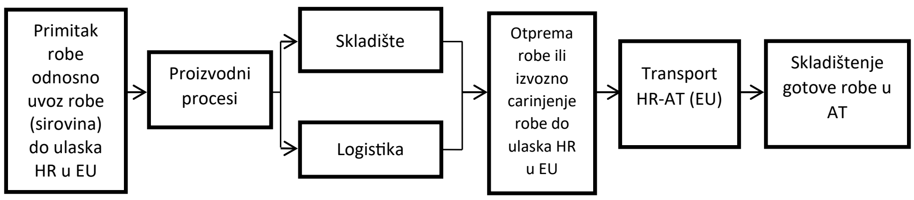
ZAKONSKA REGULATIVA DO 01. 07. 2013.	**ZAKONSKA REGULATIVA NAKON 01. 07. 2013.**
Carinski zakon Republike Hrvatske	Carinski zakonik zajednice
Uredba za provedbu Carinskog zakona	Uredba za provedbu carinskog zakonika zajednice
Uredba o carinskoj tarifi (donosi ju zakonodavac za svaku kalendarsku godinu)	TARIC
	Zakon o službenoj statistici (INTRASTAT izvještavanje)

Izvor: Izrada autora

U tablici 1 se prikazuje razlika propisane zakonske regulative prije i poslije ulaska Republike Hrvatske u Europsku uniju.

4. UVOZ I IZVOZ ROBE NA PRIMJERU PODUZEĆA „XY“ PRIJE I POSLIJE ULASKA REPUBLIKE HRVATSKE U EUROPSKU UNIJU

Uvozom se osigurava nabava robe ili usluga koje se ne proizvode, odnosno ne mogu se osigurati u okviru nacionalne privrede [6, str. 491]. Nabava ima dobar pregled situacije na tržištu kao i potreba vlastitog poduzeća, da uspostavi odgovarajuće odnose s drugim službama vlastite organizacije i s dobavljačima i da se stalno rukovodi s ciljem optimiziranja logističkih troškova i procesa stvaranja vrijednosti [7, str. 46]. U logistiku proizvodnje spadaju: razmatranja „proizvoditi ili kupovati”, zajednički s nabavom; strukturiranje proizvodnje prema logističkim motrištima; planiranje proizvodnje i upravljanje proizvodnjom; uobličavanje fizičkoga i informacijskog toka kroz proizvodnju (skladišni i transportni sustavi, sustavi planiranja, upravljanja i simulacije, CAX (engl. Computer Aided „X”) [8, str. 39]. Glavni zadatak skladišne službe je da uz najniže moguće troškove osigura što kvalitetniju skladišnu uslugu [9, str.172]. Skladišta mogu igrati ključnu ulogu u strategiji integralne logistike i u izgradnji i održavanju dobre povezanosti s partnerima iz opskrbnog lanca i izlazna skladište pomažu kupcima da kupuju na zahtjev iako u blizini nema proizvodnog pogona [10, str. 172]. Gotovo svaki posao povezan je sa prijevozom robe, pri čemu posebno mjesto zauzimaju transportni troškovi koji predstavljaju znatan dio ukupnih troškova.



Slika 1. Tijek procesa primitka i otpreme robe na primjeru poduzeća „XY“. Izvor: Izrada autora

Na slici 1. prikazan je tijek procesa koji roba prolazi od ulaska u krug poduzeća, preko tehnološkog procesa kojem je podvrgnuta i ponovnog vraćanja pošiljatelju u Austriju (AT). U navedenom procesu poduzeće ne mora nužno imati skladište gotove robe, budući da postoji mogućnost da se sve zalihe optimiziraju kao minimalne zalihe. Na taj se način roba odmah nakon proizvodnje transportira u drugu zemlju članicu EU (AT) gdje se skladišti u logističkom skladištu. Glavna djelatnost u Službi uvoz izvoz poduzeća „XY" sastoji se od pravovremenog uvoza sirovina (odnosno primitka sirovina u terminologiji nakon ulaska HR u EU), u skladu sa pozitivnim zakonskim propisima, te pravovremenog izvoza gotovih proizvoda (odnosno otpreme gotove robe u terminologiji važećoj nakon ulaska u EU). Služba uvoz izvoz mora biti podrška za potrebe proizvodnje. Za izvršenje te djelatnosti bitna je suradnja sa ostalim službama unutar poduzeća uključujući prvenstveno skladište i logistiku. Poduzeće „XY" prije ulaska u EU imalo je mogućnost zatražiti povlašteni carinski status prilikom carinjenja robe (tzv. kućno carinjenje) kako bi stvorili uvjete za nesmetan protok robe od proizvođača u HR do kupca u EU (AT). Postoje sljedeći statusi: 1. ovlašteni pošiljatelj, to je poduzeće koje može samo bez odlaska na carinu izvozno ocariniti robu, prema potrebi staviti vlastita carinska obilježja i pustiti robu u transport; 2. ovlašteni primatelj je poduzeće koje ima odobrenje da može samo izvršiti uvozno carinjenje T1 robe u krugu tvornice. Na primjer, kamion ne mora ići na carinu već carinske formalnosti obavljaju ovlašteni carinski zastupnici zaposleni u tom poduzeću. 3. Ovlašteni izvoznik je poduzeće i odgovorna osoba u tom poduzeću može potpisati izjavu izvoznika o preferencijalnom podrijetlu, tako da se ne mora popunjavati obrazac EUR1 i ne mora kamion sa robom odlaziti na carinu zbog ovjere EUR1 dokumenta. Nakon ulaska u EU navedeni statusi imaju novi naziv ovlašteni gospodarski subjekt, odnosno AEO status [11]. Cilj dobivanja povlaštenih carinskih statusa (prije ulaska HR u EU) u promatranom poduzeću XY je bio stvoriti uvjete za brzi protok roba na relaciji Austrija – Hrvatska - Austrija i stvoriti uvjete za isporukom robe iste ili barem slične onima kao da je Republika Hrvatska već u Europskoj uniji. Postupak izvoznog carinjenja robe prije ulaska HR u EU obuhvaćao je sljedeće korake: a) U statusu ovlaštenog pošiljatelja: 1. izrada izvoznih carinskih faktura; 2. izrada KZI (knjigovodstveni zapis izvoza); 3. izrada jedinstvene carinske deklaracije JCD3; tjedno podnošenje jedinstvene carinske deklaracije JCD carini za sve izvoze napravljene u prethodnom tjednu; b) bez statusa ovlaštenog pošiljatelja: 1. izradu izvoznih carinskih faktura; 2. izradu jedinstvene carinske deklaracije JCD i podnošenje iste carini zajedno sa robom; 3. izradu provoznog dokumenta tzv. NCTS (eng. New computerised transit system). Provozni postupak je prvi carinski postupak koji se u Republici Hrvatskoj provodio u elektroničkom obliku (e-carina). Postoje dvije vrste: OTS (eng. old transit system), papirnati oblik JCD jedinstvene carinske deklaracije za provoz koji se više ne provodi. Novi kompjuterizirani provozni postupak NCTS (eng. New Computerised Transit System) je carinski sustav elektroničke razmjene podataka između uvoznika/izvoznika i carinske uprave koji komuniciraju isključivo putem elektroničkih poruka G2B servis, (eng. goverment to business). U Republici Hrvatskoj 01. kolovoza 2011. godine uveden je NCTS sustav na nacionalnoj razini. Od 1. kolovoza 2012. godine stupa na snagu Konvencija o zajedničkom provoznom postupku između EU i HR i od tada je moguće, ali nije obavezno, provozne postupke za EU otvarati u HR. Isto tako, provozne postupke otvorene u EU moguće je zatvarati u HR, na primjer, carinska ispostava Kutina (HR) - carinska ispostava Spielfeld (AT) i obrnuto. Tako otpremljene pošiljke ne trebaju se zaustavljati na putu iz HR u EU iako HR tada još nije službeno pristupila u EU. NCTS-om se otpremala sva roba iz proizvodnje i to za vrijeme radnog vremena Carinske ispostave jer je NCTS trebala ovjeriti nadležna carinska ispostava, s obzirom da ovjeru nije mogao napraviti sam ovlašteni pošiljatelj.

5. OTPREMA ROBE NA PRIMJERU PODUZEĆA „XY“ POSLIJE ULASKA REPUBLIKE HRVATSKE U EUROPSKU UNIJU

Pojmovi „primitak robe“ i „otprema robe“ koriste se za robu koja ima status robe zajednice (T2 roba) te ju otpremamo ili primamo iz jedne zemlje članice EU u drugu zemlju članicu EU. Navedene pojmove treba promatrati u širem kontekstu jer obuhvaćaju fizički prijelaz tj. transport robe i zakonom propisanu dokumentaciju koja mora pratiti robu na putu. Svaku otpremu i svaki primitak robe, poduzeće koje otprema ili prima mora upisati u određeni postupak Intrastat izvještaja. Intrastat je europski sustav za prikupljanje podataka o robnoj razmjeni među članicama EU. To je statistička evidencija fizičkog kolanja robe zajednice iz jedne zemlje članice EU u drugu zemlju članicu EU. Intrastat u Republici Hrvatskoj provodi Državni zavod za statistiku i Carinska uprava - Odjel za Intrastat. Obveznici izvještavanja za Intrastat su svi poslovni subjekti, obveznici PDV-a, čija godišnja vrijednost robne razmjene sa zemljama EU-a prelazi prag uključivanja bilo za otpreme bilo za primitke ili za oba trgovinska toka. U 2019. godini vrijednost praga uključivanja za primitke iznosi 2. 200. 000,00 kuna, a za otpreme 1. 200. 000,00 kuna [12]. U poslovnoj praksi poduzeće „XY“ otprema robu u Austriju. Roba ima status zajednice (T2) budući da je ili proizvedena u HR ili je u HR stekla status robe zajednice carinjenjem uvezene robe iz trećih zemalja koje nisu članice EU. Nakon 1. srpnja 2013. godine promet roba i usluga unutar EU provodi se kao unutarnji promet zajednice. Zakonska regulativa poslije 01. srpnja 2013. godine obuhvaća: 1. Carinski zakonik zajednice, 2. Uredbu za provedbu carinskog zakonika zajednice; 3. TARIC i 4. Zakon o službenoj statistici (INTRASTAT izvještavanje). TARIC predstavlja informatičku verziju Zajedničke carinske tarife (elektroničku bazu podataka) koja sadrži sve dnevno aktualne EU mjere koje treba primijeniti u trgovini s trećim zemljama, odnosno svojevrsni mozak carinskog informacijskog sustava i alat bez čije bi uporabe bilo gotovo nemoguće ocariniti robu [13]. Unutar poduzeća „XY“ dolazi do promjena u poslovanju i 2014. godine ukida se Odjel Službe uvoz izvoz i osniva Odjel međunarodnog otpremništva i prijevoza. Početkom 2014. godine poduzeće „XY“ zatražilo je od Carinske uprave Republike Hrvatske ukidanje povlaštenih statusa, budući da se glavnina poslovanja poduzeća sada odvija unutar EU. U poduzeću „XY“ poslovi Odjela međunarodnog otpremništva i prijevoza nakon 1. srpnja 2013. godine su poslovi praćenja primitka i otpreme robe zajednice, carinski poslovi uključujući uvoz, izvoz, postupci s gospodarskim učinkom, Republike Hrvatske i treće zemlje koje nisu članice Europske unije. Poslovi otpreme robe vezani su uz Intrastat izvještavanje Republike Hrvatske koji vrijedi za ostale zemlje članice Europske unije. U odjelu međunarodnog otpremništva i prijevoza zaposleni su ovlašteni carinski zastupnici, samostalni referenti.

Tablica 2. Razlika postupka izvoznog carinjenja robe prije i otpreme robe nakon ulaska Republike Hrvatske u Europsku uniju. Izvor: Izrada autora

IZVOZNO CARINJENJE ROBE (HR – TREĆE ZEMLJE) DO 01.07.2013.	OTPREMA ROBE (HR - EU) OD 01.07.2013.
1. Izrada otpremnica izvoznih carinskih faktura	1. Izrada otpremnica
2. Izrada KZI (knjigovodstveni zapisi izvoza) ako se radi o otpremi robe u statusu ovlaštenog izvoznika (definiranje carinskog postupka i svih ostalih elemenata koji su potrebni za izradu JCD-a	2. Izrada međunarodnog tovarnog lista (CMR)
3. Izrada JCD (jedinstvene carinske deklaracije) – radi se u oba slučaja i kada se izvozi u statusu povlaštenog izvoznika i kada se navedeni status ne koristi, jedino se tada malo drugačije popunjava i primjena statusa ovlaštenog izvoznika/pošiljatelja zahtjeva još i podnošenje tzv. dopunske/tjedne deklaracije za svaki carinski postupak	
4. Izrada međunarodnog tovarnog lista (CMR)	
5. Izrada provoznog dokumenta tzv. NCTS (eng. New computerised transist system)	

Tablica 2 prikazuje razlike vezane uz potrebne aktivnosti izrade dokumentacije prije ulaska Republike Hrvatske i nakon ulaska u Europsku uniju. Može se utvrditi da je Republika Hrvatska ulaskom u Europsku uniju ostvarila benefite vezano uz carinsku dokumentaciju jer se ona značajno smanjila. Postupak otpreme robe iz Republike Hrvatske u državu članicu Europske unije od 1. srpnja 2013. godine sastoji se od izrade otpremnica i izrade međunarodnog tovarnog lista (CMR). Nakon pristupanja Europskoj uniji svi carinski postupci između Republike Hrvatske i trećih zemalja se provode u elektroničkom obliku, a između Republike Hrvatske i ostalih zemalja članica evidencija robne razmjene se evidentira u INTRASTAT-u. U poslovanju sa trećim zemljama provodi se izvoz robe iz Republike Hrvatske, odnosno Europske unije, u treće zemlje. Dakle, razlike u procesu izvoza robe prije i poslije ulaska Republike Hrvatske u Europsku uniju sa trećim zemljama nisu značajne osim razlike u tehničkim pitanjima podnošenja carinske deklaracije u elektroničkom obliku u carinski sustav.

6. ZAKLJUČAK

Na temelju provedene analize može se utvrditi da Republika Hrvatska napušta sve bilateralne ugovore o slobodnoj trgovini sklopljene sa Europskom unijom i sa drugim zemljama ne-članicama EU, a preuzima sve ugovore o slobodnoj trgovini koje je EU ispregovarala sa određenim trećim zemljama. Republika Hrvatska pristupanjem Europskoj uniji ulazi u carinsku uniju i time se promet robe i usluga obavlja kao unutarnji promet zajednice. HR napušta Uredbu o carinskoj tarifi, a dobiva TARIC carinsku tarifu Europske unije u koji su obuhvaćeni i određeni drugi zakoni, koji se moraju primjeniti prilikom carinjenja robe, što carinska tarifa HR nije sadržavala. Intrastat izvještavanje uvodi se za sve primitke i otpreme unutar zemalja članica EU. To je osnovni izvor informacija za statistiku platne bilance, nacionalne račune i kratkoročne ekonomske studije. Carinski postupci, uvoz, izvoz, provoz, carinsko skladište, postupci s gospodarskim učinkom primjenjuju se samo na robu koja nije roba zajednice i to u trgovini između HR i trećih zemalja koje nisu članice EU. Prednosti za poslovanje poduzeća „XY" i Odjela međunarodnog otpremništva su prvenstveno financijski zbog ukidanja carinskih davanja prilikom primitka robe iz drugih zemalja članica jer je EU carinska unija i vremenski zbog nesmetanog protoka robe između zemalja članica EU od 0 - 24 sata, svih sedam dana u tjednu. Doprinos ovog rada sastoji se u komparativnoj analizi izvoza, uvoza te otpreme i primitka robe prije i poslije ulaska Republike Hrvatske u Europsku uniju. U takvim složenim poslovnim odnosima presudnu ulogu ima educirano, kvalificirano osoblje i kvaliteta cjelokupnog logističkog sustava u poduzeću.

LITERATURA:

[1] https://carina.gov.hr/UserDocsImages//dokumenti/Procedure/Propisi//Prilog_9_Potvrda_o_promet_251.pdf
[2] https://carina.gov.hr/UserDocsImages//dokumenti/Procedure/Propisi//Prilog_8_Lista_prerada_il_250.pdf
[3] https://carina.gov.hr/propisi-i-sporazumi/carinska-tarifa-vrijednost-i-podrijetlo/podrijetlo-robe/upute-i-pojasnjenja-carinske-uprave-4065/nepovlasteno-podrijetlo-robe/4079
[4] Carinski zakonik unije: https://carina.gov.hr/pristup-informacijama/propisi-i-sporazumi/carinsko-zakonodavstvo/carinski-propisi/carinski-zakonik-unije-5199/5199
[5] https://carina.gov.hr/pristup-informacijama/propisi-i-sporazumi/carinsko-zakonodavstvo/carinski-propisi/carinski-zakonik-unije-5199/5199
[6] Andrijanić I. (2012), Poslovanje u vanjskoj trgovini, Mikrorad, Zagreb.

[7] Ferišćak, V. (2000), Elemetni managementa nabave, II. dopunjeno izdanje, Vlastito izdanje, Zagreb.
[8] Segetlija, Z. (2008), Uvod u poslovnu logistiku, II. izmijenjeno i dopunjeno izdanje, Ekonomski fakultet u Osijeku, Osijek.
[9] Šamanović, J. (2009), Prodaja, distribucija, logistika - Teorija i praksa, Sveučilište u Splitu, Ekonomski fakultet, Split.
[10] Bloomberg, D.J., LeMay, S., Hanna, J.B. (2006), Logistika, MATE, d.o.o., Zagreb.
[11] https://carina.gov.hr/pristup-informacijama/propisi-i-sporazumi/carinsko-zakonodavstvo/upute-3514/sigurnost-i-zastita/aeo-ovlasteni-gospodarski-subjekti/2491
[12] https://www.dzs.hr/Hrv/intrastat/intrastat.htm
[13] www.carina.hr

ISTRAŽIVANJE ZADOVOLJSTVA PUTNIKA U ŽELJEZNIČKOM PROMETU REPUBLIKE HRVATSKE

THE RESEARCH ON PASSENGER SATISFACTION IN THE RAILWAY TRAFFIC OF THE REPUBLIC OF CROATIA

Helena Šlogar[1]

DOI: https://doi.org/10.31410/EMAN.2019.225

Sažetak: *U uvjetima današnje dinamične poslovne okoline željeznički putnički promet zahtjeva analizu zadovoljstva putnika kako bi se utvrdile eventualne opasnosti za poslovanje u budućnosti. Isto tako, otkrile potencijalne p Hallovárilike koje mogu omogućiti pronalaženje optimalnog rješenja za popularizaciju prijevoza vlakom. Svrha rada je prikazati kakvo je zadovoljstvo putnika u željezničkom putničkom prometu u Republici Hrvatskoj. Istraživanje je prevedeno od prosinca 2018. do veljače 2019. godine u Republici Hrvatskoj na uzorku od 112 ispitanika na temelju metode anketiranja. Rezultati su pokazali da postoji zadovoljstvo ispitanika pri uvažavanju preferencija putnika i njihovih potreba za uslugama željezničkog prijevoza u Republici Hrvatskoj.*

Ključne riječi: *putnik, zadovoljstvo, željeznički promet, usluge*

Abstract: *Under the conditions of today's dynamic business environment, railway passenger traffic requires passenger satisfaction analysis in order to identify any potential dangers for future business. The analysis also uncovers potential opportunities in finding the optimal solution for popularizing train transportation. The purpose of this paper is demonstrating the satisfaction of passengers in railway passenger traffic in the Republic of Croatia. The study was conducted from December 2018 to February 2019 in the Republic of Croatia on a sample of 112 respondents based on the survey method. The results have shown that the satisfaction of respondents depends on taking into account passenger preferences and their needs for railway transport services in the Republic of Croatia.*

Keywords: *passenger, satisfaction, railway traffic, services.*

1. UVOD

Željeznički prijevoz putnika predstavlja važnu vrstu transporta iako se obujam željezničkog promet smanjio, te su se javili konkurentniji oblici prijevoza robe i putnika. Kao posljedica modernizacije željezničkog prometa, kako u svijetu, tako i u Republici Hrvatskoj, doveli su do značajnog smanjenja broj zaposlenika u željezničkom transportu. Jednako tako, dolazi do smanjenja broja željezničkih prometnih vozila, te se postavljaju novi zahtjevi za unapređenjem i modernizacijom infrastrukture. Pri tome posebnu pažnju treba posvetiti analizi čimbenika koji imaju najveći utjecaj na zadovoljstvo putnika kako bi se utjecalo na strateški razvoj željezničkog prijevoza u budućnosti.

[1] Libertas sveučilište, Trg J.F. Kennedy 6b, 10 000, Zagreb, Republika Hrvatska

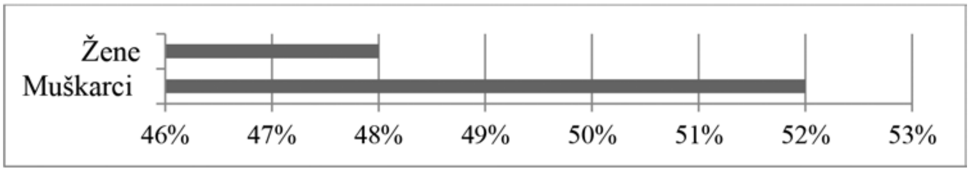
2. ŽELJEZNIČKI PRIJEVOZ PUTNIKA U REPUBLICI HRVATSKOJ

U Republici Hrvatskoj željeznička prometna infrastruktura još uvijek nije dovoljno modernizirana, što uvelike utječe na konkurentnost željezničkog transporta. Hrvatska mreža željeznica obuhvaća 2.604 kilometara i predstavlja dobar omjer kilometara pruga i broja stanovnika zemlje (1.556 osoba po kilometru), što stavlja Republiku Hrvatsku u rang s razvijenim europskim zemljama [1]. Međutim, 90% željezničke mreže čine jednokolosječne pruge, a samo 36% je elektrificirano. Gotovo 55% mreže odnosi se na željezničke linije važne za međunarodni promet [2]. Problem udaljenosti između stajališta, niske brzine, te zastarjela prometna kontrola i signalizacijski sustav imaju izravan utjecaj na prometni kapacitet linija te konkurentnost željeznice kao prometnog podsustava. Mogućnost rasta prometa na regionalnim i lokalnim linijama jasno je ograničena njihovim kapacitetima [3]. Potrebno je „oživjeti" paneuropske koridore i uspostaviti nove, što znači jednakomjeran razvoj, povećanje konkurentnosti, usmjeren prijevoz proizvoda te financijske, ekonomske i ekološke učinke. Da bi se prometna infrastruktura pripremila za ulazak prometnih tokova, potrebno se pripremiti aktivnim sudjelovanjem na međunarodnoj razini te investicijama u skladu s predviđanjima prometnog opsega [4]. Prijevozni put kod željezničkog prijevoza čini željeznički kolosijek ili željeznička pruga. Za željeznički kolosijek odnosno prugu posebno su značajne dvije osnovne činjenice: a) širina kolosijeka i b) dozvoljeno opterećenje pruge prema osovinskom pritisku. U većini europskih zemalja, pa tako i u Republici Hrvatskoj, širina željezničkog kolosijeka iznosi 1, 435 mm [5, str. 94]. U željezničkom prijevozu putnik je fizička osoba koja putuje s jednog mjesta (polazišta) do drugog mjesta (dolazišta). Prijevoz putnika može biti direktan (bez zaustavljanja na tranzitnim postajama na putu do mjesta dolaska) ili indirektan (s zaustavljanjima na tranzitnim postajama na putu do mjesta dolaska) te mješovit (korištenje dva ili više prometnih oblika). Prijevoznik je fizička ili pravna osoba koja se bavi prijevozom kao svojim redovitim poslovanjem, ali i svaka druga osoba koja na temelju ugovora o prijevozu obavlja prijevoz uz naknadu [6, str. 57]. Željezničke usluge razvrstavaju se na: minimalni pristupni paket, pristup prugom uslužnim objektima i uslugama koje se pružaju u tim objektima, dodatne usluge i prateće usluge [7]. Ideja za projekt „*Connect To Central Europe"* (CONNECT2CE) je nastala na temelju dugogodišnjeg fenomena urbanizacije, kao posljedica iseljavanja ljudi iz ruralnih područja, odnosno, depopulacijom stanovništva nastali su izazovi u organizaciji efikasnog prijevoza što ujedno i pridonosi negativnom trendu smanjivanja potreba javnog prijevoza u ruralnim područjima i u konačnici ukidanju usluga javnog prijevoza [8]. HŽ putnički prijevoz od 2017. godine sudjeluje u projektu *Connect To Central Europe* (CONNECT2CE) čiji je cilj međusobno povezati tri djelokruga rada (outputa): 1. povezivanje različitih područja pružanja željezničkih usluga prijevoza sklapanjem ugovora o uslugama javnog prijevoza (engl. *Public Service Offering*- PSO); 2. usklađivanje multimodalnih voznih redova i unapređenje željezničkih regionalnih i prekograničnih usluga, integriranje karata i tarifnih sustava i 3. implementacija najučinkovitijeg i najinovativnijeg ICT sustava/alata za pružanje informacija o mobilnosti korisnicima željezničkih usluga [9].

3. METODOLOGIJA ISTRAŽIVANJA

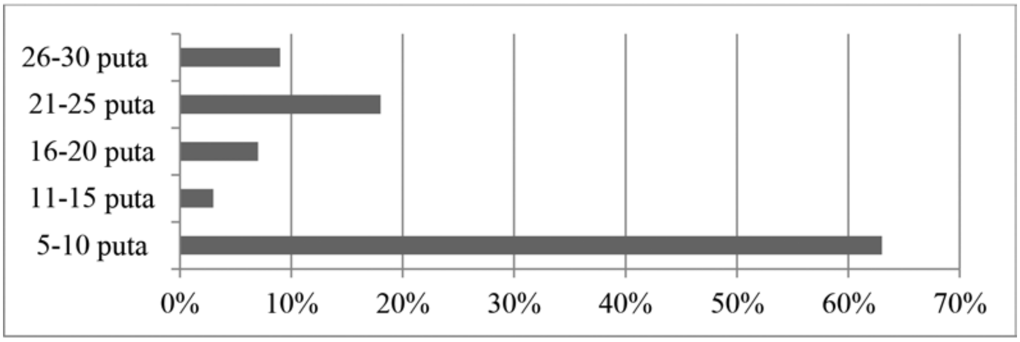
Istraživanje je provedno metodom anketiranja na uzorku od 112 ispitanika od prosinca 2018. do veljače 2019. godine u Republici Hrvatskoj. Nastojala se istražiti učestalost putovanja željezničkim putničkim prijevozom u Republici Hrvatskoj, financijska i vremenska isplativost korištenja željezničkog putničkog prometa, razlozi korištenja željezničkog putničkog prijevoza, zadovoljstvo željezničkim putničkim prijevozom, prednosti željezničkog putničkog prijevoza te očekivana poboljšanja u željezničkom putničkom prijevozu u Republici Hrvatskoj.

4. REZULTATI ISTRAŽIVANJA



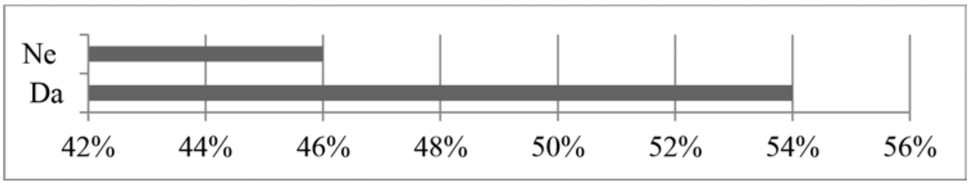
Grafikon 1. Spol ispitanika (N=112). Izvor: Vlastito istraživanje

U istraživanju je sudjelovalo 112 ispitanika na području Republike Hrvatske od toga 52% čine muškarci i 48 % žene. Grafikon 1. prikazuje da udio žena u odnosu na muškarce koji se koriste željezničkim putničkim prijevozom gotovo izjednačen.



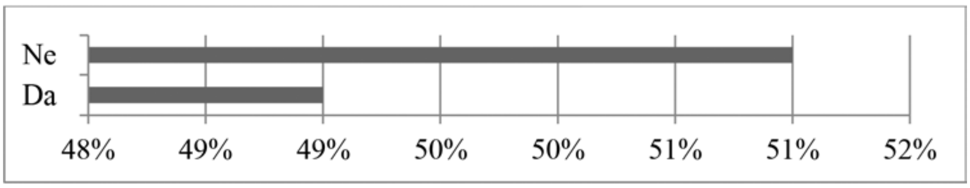
Grafikon 2. Učestalost putovanja željezničkim putničkim prijevozom
u Republici Hrvatskoj u razdoblju od prosinca 2018. do veljače 2019. godine (N=112)
Izvor: Vlastito istraživanje

Grafikon 2. prikazuje da od prosinca 2018. do veljače 2019. godine 63% ispitanika je putovalo 5-10 puta željezničkim prijevozom, 18% ispitanika putovalo je 21-25 puta, 9% ispitanika 26-30 puta, 7% ispitanika putovalo je 16-20 puta, dok samo 3% ispitanika putovalo je 11-15 puta.



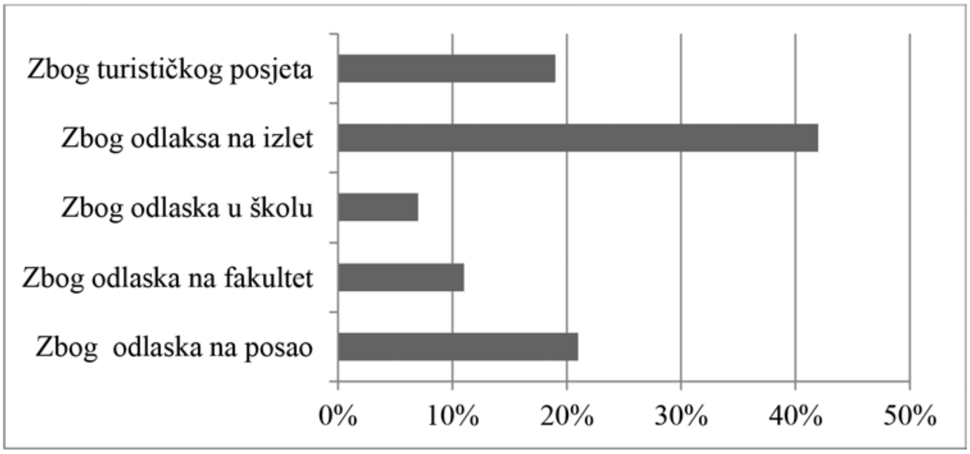
Grafikon 3. Financijska isplativost korištenja željezničkog putničkog prometa
u Republici Hrvatskoj (N=112). Izvor: Vlastito istraživanje

Grafikon 3. prikazuje da 54% ispitanika smatra korištenje željezničkog putničkog prijevoza financijski isplativo, dok 46% navodi da je korištenje željezničkog putničkog prijevoza financijski neisplativo.



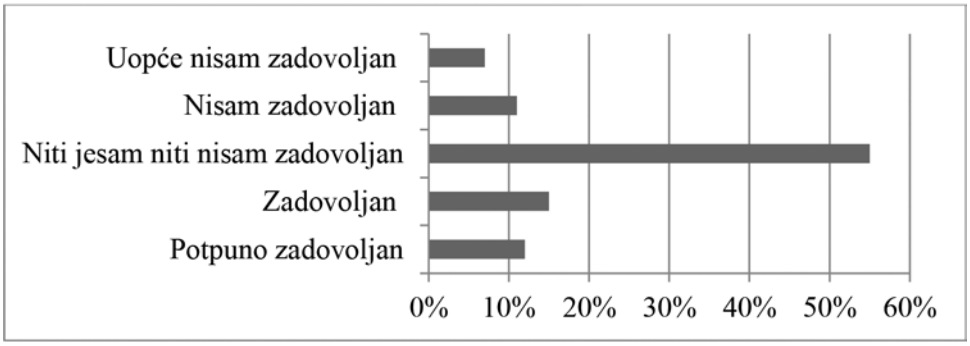
Grafikon 4. Vremenska isplativost korištenja željezničkog putničkog prometa
u Republici Hrvatskoj (N=112). Izvor: Vlastito istraživanje

Grafikon 4. pokazuje da 51% ispitanika smatra korištenje željezničkog putničkog prijevoza vremenski neisplativo, dok 49% ispitanika smatra da im je vremenski isplativo korištenje željezničkog putničkog prijevoza u Republici Hrvatskoj.



Grafikon 5. Razlozi korištenja željezničkog putničkog prijevoza u Republici Hrvatskoj (N=112)
Izvor: Vlastito istraživanje

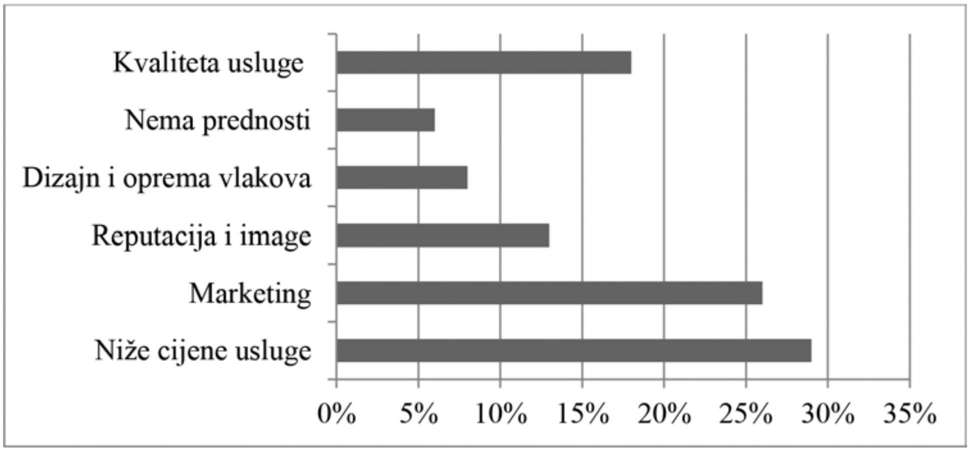
Grafikon 5. prikazuje da 42% ispitanika koristi željeznički putnički prijevoz zbog odlaska na izlet boraveći kraće od 24 sata izvan uobičajenog mjesta prebivališta. 21% ispitanika se koristi željezničkim putničkim prijevozom zbog odlaska na posao. 19% ispitanika koristi željeznički putnički prijevozom zbog turističkog posjeta što znači da je boravak dulji od 24 sata izvan uobičajenog mjesta prebivališta. 11% ispitanika koristi željeznički putnički prijevoz zbog odlaska na fakultet, a samo 7% ispitanika se koristi željeznički putnički prijevoz zbog odlaska u školu.



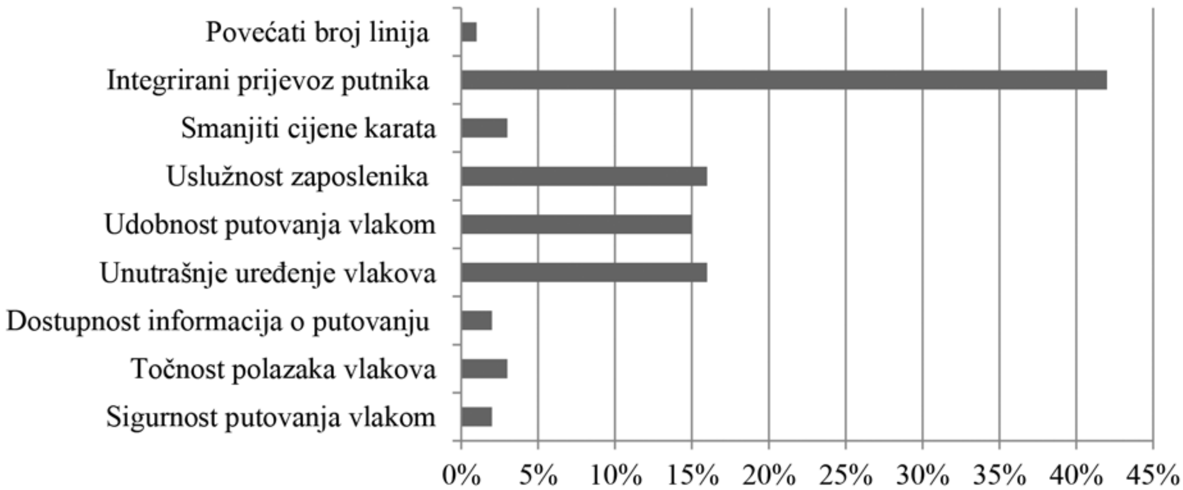
Grafikon 6. Zadovoljstvo ispitanika željezničkim putničkim prijevozom
u Republici Hrvatskoj (N=112). Izvor: Vlastito istraživanje

Grafikon 6. prikazuje da je 55% ispitanika neodlučno vezano uz njihovo zadovoljstvo željezničkim putničkim prijevozom. Istovremeno, 15% ispitanika je zadovoljno, 12% potpuno zadovoljno dok 11% ispitanika nije zadovoljno, a 7% uopće nije zadovoljno željezničkim putničkim prijevozom u Republici Hrvatskoj.

Koje to prednosti ima željeznički putnički promet i što njihove usluge čini atraktivnima za putnika pokazuje grafikon 7. Prema mišljenju anketiranih ispitanika to su u prvom redu niže cijene usluga smatra 29%, zatim marketing 26%, kvaliteta usluge 18%, reputacija i image 13% te dizajn i oprema vlakova 8%. Zanimljivo je da oko 6% anketiranih ispitanika smatra da željeznički putnički prijevoz nema nikakvih prednosti na hrvatskom tržištu.



Grafikon 7. Prednosti željezničkog putničkog prijevoza u Republici Hrvatskoj
Izvor: Vlastito istraživanje



Grafikon 8. Očekivana poboljšanja u željezničkom putničkom prijevozu
u Republici Hrvatskoj (N=112). Izvor: Vlastito istraživanje

Grafikon 8. pokazuje da 42% ispitanika smatra da je potrebno razvijati integrirani prijevoz putnika u Republici Hrvatskoj, a 16% smatra da bi trebalo poboljšati unutrašnje uređenje vlakova. 16% ispitanika navodi da bi trebalo poboljšati uslužnost zaposlenika, dok 15% smatra da bi trebalo poboljšati udobnost putovanja vlakom. Isto tako, 3% ispitanika smatra da treba poboljšati točnost polazaka vlakova. 3% ispitanika izjasnilo se da bi trebalo smanjiti cijene karata, a 2% da treba unaprijediti dostupnost i pravovremeno pružanje informacija putnicima, na primjer, prilikom kašnjenja vlakova i 2% da treba povećati sigurnost putovanja vlakovima. Samo 1% ispitanika smatra da treba povećati broj linija u putničkom prijevozu.

6. ZAKLJUČAK

Kao posljedica modernizacije željezničkog prometa, kako u svijetu, tako i u Republici Hrvatskoj javljaju se novi zahtjevi za unapređenjem željezničke infrastrukture s ciljem popularizacije prijevoza vlakom. Može se utvrditi prema rezultatima istraživanja da ispitanici navode potrebu uvođenja integriranog prijevoza putnika na području Republike Hrvatske čime apeliraju na ulogu jedinica lokalne i regionalne samouprave u organizaciji javnog prijevoza putnika, smjerni-

cama integriranog javnog prijevoza putnika te suradnji željezničkog i drugih vidova prijevoza. U Republici Hrvatskoj uvođenjem i razvojem integriranog javnog prijevoza putnika trebalo bi postići održivu mobilnost i ostvariti prednosti svih prijevoznih modova uz korištenje zajedničkih karata, voznih redova i tarifa, a time bi se povećala i kvaliteta javnog prijevoza. Prednosti uvođenja integriranog javnog prijevoza putnika su učestaliji poslasci, kraće vrijeme putovanja i brži nastavak putovanja nakon presjedanja u točki integracije čime se povećava i kvaliteta života pojedinca. Takav prijevoz trebao bi smanjiti zagušenost prometnica i povećati razinu sigurnosti u prometu te onečišćenje okoliša koje generira prometni sustav. Sukladno rezultatima istraživanja postoji prostora za poboljšanje cjelokupne usluge željezničkog prijevoza putnika, što se prije svega odnosi i na veću udobnost i unutranje uređenje vlakova čime bi se dugoročno potaknuo i razvoj turizma. Republika Hrvatska prepoznala je važnost održive mobilnosti, ali presporo uvodi modernizaciju i kontinuirano unapređuje sustav prijevoza putnika. Razvijen prometni sustav u Republici Hrvatskoj je nužan radi uspostavljanja kvalitetnog prometnog sustava, kojim se ostvaruju mnoge prednosti za prijevoznike, putnike, lokalnu i regionalnu samoupravu te gospodarstvo.

LITERATURA

[1] http://www.mppi.hr
[2] http://www.mppi.hr
[3] http://www.mppi.hr
[4] Zemljič, F. (2015) Razvoj željeznica regije u sklopu mreže TEN-T obzirom na zahtjeve europske regulative te na potrebe i očekivanja prijevoznika, Prometni fakultet Zagreb, Zagreb.
[5] Andrijanić I., Aržek Z., Prebežac D., Zelenika R., (2007) Transportno i špeditersko poslovanje, Mikrorad d.o.o., Zagreb, Zagreb.
[6] Andrijanić I., Gregurević D., Šlogar H. (2016), Poslovna logistika, transport i otpremništvo- materijali za interno izučavanje, Libertas međunarodno sveučilište, Zagreb.
[7] Popović N. (2016) Uloga sektorskog regulatora na tržištu željezničkih usluga, Zbornik PFZG 2016., str. 345.
[8] http://www.hzpp.hr
[9] http://www.hzpp.hr

PERFORMANCE MANAGEMENT AND TRANSFORMATION OF HUMAN RESOURCES IN STATE-OWNED RAILWAY TRANSPORT OF SERBIA

Vasko Vassilev[1]
Predrag Jovanovic[2]

DOI: https://doi.org/10.31410/EMAN.2019.231

Abstract: *The main objective of the study of performance management is to promote and improve the efficiency of employees. This is a continuous process in which managers and employees jointly plan the goals and contribution of everyone. The main management tools are related to identifying areas for improvement; identifying needs for personal and professional development; promoting good achievements. Performance appraisal is based on a predefined set of criteria described in this study.*

The study shows the existence of formally documented strategies and a clear need to raise awareness of the different hierarchical levels. The available level of communication with regard to the monitoring and evaluation systems used also shows that there is a need for improvement and intensification. At the central level, there is a claim that there is a labor assessment system, but the evaluation conditions and the criteria used are poorly transmitted at the next levels of government. Another important area is the assumption and allocation of responsibilities, which has not changed in recent years. The adequacy of the system to the external environment implies changes that are in line with the inevitable commercialization of Serbian railways.

In order to record as-Is situation on Performance management, and to propose upgrade on the existing methodology of a continuous process of planning, monitoring and reviewing employee performance, a study was realized. The main objective was to provide sufficient information for analysis which enabled to develop a performance management plan based on a key indicator system. As-Is analysis findings, cross-referenced with the best practices have determined a particular "gap" level. In order to overcome the gap were developed guidelines, optimally adjusted for state-owns railways of Serbia.

The main results of the study are related to a description of the necessary requirements for successful performance management, including organizational, procedural prerequisites and necessary functional skills and competencies of the supervisors. A system of key indicators for functional monitoring of the effectiveness of the human resource management process is also proposed. Primarily to determine the quality of the KPIs we defined, we have conducted Data Envelopment Analysis (DEA).

The study ends with the following conclusions: to build further work on human resource transformation, namely improving information and coordination of information at different hierarchical levels by optimizing the communication system; optimizing the system for allocating responsibilities for increasing labor productivity; updating the system for monitoring, evaluation and compensation of labor. Achieving a good Success Management system is possible when performing a series of activities such as: design and validation of an adequate system of objectives; Restructuring the economic subsystem and functional redistribution in line with the enterprise's objectives; development of a functional specification for the digitalization of the performance management.

Keywords: *HR transformation, performance management, digitalization, railway.*

[1] Transport University Sofia, Bulgaria
[2] University of Belgrade, Serbia

1. INTRODUCTION

Work performance management requires multidimensional approach at multiple levels of organizational structure. Basic example of measurement of work performance of the company itself are the financial indicators and relations between the financial indicators and turnover indicators. Performance can be measured at the level of organization, at the level of organizational units, at the level of working teams and at the level of an individual (employee). Common practice is that the organizational part dealing with finances, i.e. planning and analysis, generates and presents reports which provide answers to question of performance of the entire organization. However, this cannot be regarded as separate information, but as a presentation of business results, in addition to which, and within which additional indicators are considered as well. The issue of performance of individual organizational units is usually dealt by company management through planning, organization, coordination and control, i.e. monitoring of results which a particular organizational unit is accomplishing. In addition to these indicators, series of methods are developed to quantify indicators in various fields. One example is the employee engagement index (elaborated hereinafter) which is used to determine the quality approach to human resources management within the company. Another example is the series of indicators which follow the process approach, i.e. these lead to the evaluation of effectiveness of implementation of individual activation of a business process. Combination of financial results and metric methods dealing with employees, thereof motivation or dedication allows for the top management of the company to make well-informed decisions and take steps which will result in increased productivity, higher motivation and reduced employee turnover.

Employee performance management, requires a comprehensive approach which starts from strategy, goals and plans of the organization which are elaborated to the level at which an individual (employee) can provide personal contribution, i.e. to the level at which personal contribution can be assessed. On the other hand, goals set for individuals rest on the job description, and the result of application of performance management methodology should be employee development, thereupon obtaining of information to generate annual training plans as well as improvement of the overall efficiency level while accomplishing company goals.

2. PERFORMANCE MANAGEMENT

The main purpose of performance management is to promote and improve the efficiency of the employees. This is a continuous process where managers and employees jointly plan the goals and contribution of each to the enterprise. An effective performance management system includes:

- Assessment of employees’ contributions to company plans,
- Identification of areas for improvement,
- Identification of the needs for personal and professional development,
- Promoting good achievements,
- Defining work and career goals,
- Adjustment of wages.

Performance control is implemented based on plans and current job descriptions. Performance appraisal stands on pre-established set of criteria known to both parties, and its result is reflected in a written document.

Performance management is an ongoing process guided by the principles of positive attitudes towards employees and aiming to maintain high efficiency and give employees clear feedback on their work. The main function of this process is early detection of problems, before work results of employee have a negative impact on the enterprise or on the person.

The development of an effective performance management system is based on certain areas of human resource management, the most important of which are:

- Clear and precise written job descriptions,
- Clear hierarchical structure and effective supervision,
- Positive working environment as it is demonstrated by Figure 1.

Figure 1: Working environment

In addition to the development purpose, performance management also has a corrective dimension, i.e. it enables influencing the skills, knowledge and competences of an individual through various corrective measures. Well-arranged system which minimizes subjectivity in evaluation enables identifying weaknesses in knowledge, skills and employees' attitude to work and, based on that, taking of corrective measures, including the measures provided for in the Labor Law (LL).

Performance management is one of the most important tools for human resources management. Based on the analysis of the current regulations, and in view of creating conditions for increasing the efficiency in work and improving the working results of employees, the expert team deems that it is necessary to develop a new performance evaluation and management system, based on best practices and experience in this field.

Evaluation of the available information among the employees that will participate in the development and implementation of the performance management system was done by using the specialized questionnaire prepared by the consultancy team.

In proposing the elements and sequence of activities for the preparation of the performance management plan, the consultancy team applied modern performance planning methods (goals setting, periodic, i.e. semi-annual review and annual evaluation of accomplishment thereof), all being tailored to the organizational structure of the Company.

The team also prepared a proposed sequence and schedule of activities for the development of performance management system with determined steps, from the launching to the implementation of the performance evaluation system.

The 15 selected Key Performance Indicators (KPI) are presented, which are intended for monitoring of the development of human resources and of the impact of the performance determination mechanisms, and the Company may also use other indicators which it deems appropriate for consideration and guiding of activities for determination, management of performance and human resources development.

2.1. Questionnaire

For purposes of analysis, we prepared a specialized questionnaire [5], [6]. The main objective of the questionnaire was to provide sufficient information, the analysis of which will enable the consultant team to develop a performance management plan (based on a key indicator system) at the highest possible professional level. This plan will provide opportunities for decisions-making in human resources management and will be the basis for developing a labor development plan.

The main sections in the questionnaire, which indicate the areas for decision-making are the following: strategy and corporate policies; development of staff; payment and remuneration; labor relations and communications and organization data.

The questionnaire was completed at two management levels (Central and Regional) in the Fright railway operator, passenger railway operator and infrastructure manager, by executives and leading experts in human resources and administrative management, as defined by the consultancy team. A specially developed methodology is used to process the results. The questionnaire includes 34 indicators, divided into 5 groups. The weights of individual groups of indicators are determined by an expert team taking into account the number and interrelation of the individual indicators as well as the reliability of the information.

Comments received from beneficiaries were also taken into account. The basic logic of weighting is that important (relevant indicators) for which reliable information is available should be given a relatively high weight, while the importance of the indicator and / or the reliability of the data is reduced, and the burden is reduced. Less important indicators receive little weight, even when they are very reliable, because their significance for the assessment is not great. Even the most important indicators can also be low in weight when their measurement is not reliable enough because the information thus obtained hides some uncertainty and does not have to be decisive.

Conclusions:

1) Improve awareness and coordination of information at different hierarchical levels by optimizing the communication management system;
2) Optimize the system for allocating responsibilities to improve labor productivity;
3) Updating the system for monitoring, evaluation and compensation of labor - it is crucial to introduce an evaluation system that evaluates the individual contribution to the company's results;
4) Optimization of the training and retraining system for staff.

2.2. Goals setting

Setting up the system of goals is a key element of the enterprise management system. We have analyzed the system of objectives presented in the official documents and have once again identified some imperfections. As described in the methodology above to ensure maximum efficiency, goals need to be in line with some basic requirements. They should be *Concrete, Measurable, Realistic, Relevant* and *Bound in time.*

The analysis shows that there is much work to be done to bring the system of objectives into a position that can ensure a sufficiently high management efficiency of both the enterprise as a whole and the performance management that is an essential element of governance of human resources. We recommend starting a procedure to develop a new system of objectives, consistent with the main goals of Serbia's railway sector reform. It is appropriate that work be based on the following system of strategic directions for development: Enhancing competitiveness; Improvement of accessibility; Reduction of adverse environmental impact. Annual goals of the Companies which steer the manner and scope of implementation of individual strategic goals for that year are to be set in the business programme for specific year based on strategic goals.

Horizontal alignment between goals is ensured by single origin – goals of director general and executive directors, which are based on strategic goals and goals set in the annual business programme. Manner of setting of goals of managers of every other management level (each manager initially prepares his own goals, but they are definitely set after consultations with and approval by the superior manager) further ensures thereof horizontal alignment.

Vertical alignment between goals (by hierarchy) is ensured by referral or taking over of goals by "cascading".

"Referral by cascading" is initiated by the superior manager who "refers", for operationalization and implementation, to the manager of lower hierarchical level or to the employee a goal or part of a goal from his own goal plan and the latter is obliged to regulate this by setting his own goals.

"Taking over by cascading" of goals has the same purpose and result, but, by this approach, the employee has an insight into the goals of the superior manager, takes over a goal or a part of a goal relating to his scope of work and sets his own goal(s) based on that.

Once a manager's goal is cascaded to a lower level manager or employee subordinate to such manager, the manager and his subordinates are completely aligned in respect of the goal which is to be accomplished and the manner in which it will be accomplished.

Finally, alignment between goals is ensured through mandatory consultations with superiors during the goals setting process.

2.3. Key performance indicators for monitoring

There are numerous key performance indicators [10], that can be used for measurement of HR management process efficiency, or HR approach suitability. The goal is to choose such combination of indicators that will adequately present as-is situation and enable employer to determine

reasons for potential discrepancy. The most important presumptions are that representative indicators are used and that the proper set of HR data is analysed.

Comprehensive analysis should be performed in the initial phase and it should encompass the following groups of indicators: Motivation indicators; Recruitment and selectin indicators; Basic salary ratios; Effectiveness of work; Employee development.

Motivation of employees and motivation indicators

Motivation measures applied to employees should be financially considered through total amount invested in someone's salary, incentive, training, improvement, development of communication and loyalty. This should be monitored by individuals, and it is necessary to separately monitor how much was invested in individuals who asked for termination of employment. Every unwanted leave of an employee represents cost for the employer and this is obviously due to the money and time which will be dedicated to finding adequate person for the job and training which this person will need. It is estimated that the cost of replacement of an employee who left the company ranges between 3 and 6 monthly gross salaries, and in some cases (where, due to the nature of the job, great investments are required for training and qualification of the employee) cost can be significantly higher. Employers who invest more in the employees and in their development reduce the possibility that employee will leave, and, on the other hand, increase the potential loss in case that someone who was invested in leaves the company. Period which employee spends working with the employer is one of the indicators, thereafter churn rate is also used, as well as structure of employees who "left" the company, dedication and satisfaction of employees. All these indicators are to be observed, analyzed and presented to the company management by the organizational segment in charge of human resources management.

Indicator 1 - average employee tenure,
Indicator 2 - employee churn rate,
Indicator 3 - employee satisfaction index,
Indicator 4 - employee engagement index.

Other forms of surveys, combining closed and open format questions, can also be distributed in written format and left in special boxes (to keep it anonymous), but if the data is collected in written form additional statistical analysis of the questionnaire is required.

It is important to note that survey questionnaires require serious analysis, feedback and action. If employer receives the information from the employees, this should be addressed. Also, employees should receive clear feedback if something is improved or resolved, or a feedback that it is not possible to react. All of this is equally important, and if there is no willingness to take any measures, it is better not to conduct satisfaction surveys. Lack of reaction on survey results can negatively influence the overall motivation, and future response rates.

Recruitment and selection efficiency indicators

Recruitment and selection are the initial step of all processes indirectly or directly related to human resources management. The text here below addresses several indicators through which the employer may notice regularities and develop proper measures if reaction is needed. Note that recruitment of staff is highly influenced by market and demographic situation, and that the employer can only work on increasing the level of organizational culture and promotion among

the members of population he regards as prospective employees. This work requires strong efforts and dedication, and results are visible only on the long run.

Indicator 5 - average applications to open posts (example of recruitment efficiency indicator),
Indicator 6 - time to hire .

Although the market situation is currently favourable for employers, when selecting the key engineering staff, there is a problem of competition with foreign companies which offer financially more attractive packages for experienced employees.

Cooperation with schools and universities, provision of large number of certifications and professional trainings because of which the candidates for whom this is the first employment could be most interested in this system. On the long-run, it is possible to provide various development programs etc.

Recruitment success indicators will be clearly and numerically presented through the evaluation of performance of new employees. This indicator can be considered only when we will have grades for the period of at least 3 years (because individual's potential for learning and advancement will be expressed during such period). Some measures of satisfaction of new employees with the company and the specific job they perform should be taken into account.

Basic Salary Ratios

Indicators whereby salary is analyzed are usually considered as basic indicators. They are easy to calculate; data are available and comparable with market data. It is common for the employer to consider these indicators at least once a year (before budgeting).

Indicator 7 - executive to employee pay ratio,
Indicator 8 – salary competitiveness ratio.

Effectiveness of Work

Effectiveness of work is a combination of ratios gained from the available HR and financial data. Since this metric is precise, the data is known and available it is useful to consider it together with periodical financial reports.

One of the indicators in this group is HSE process indicator (Time lost to accidents and injuries) and it can be easily converted in financial value. It is necessary to point out that HSE processes are key support processes and that the goal is gaining absolute level of HSE dedication and protection.

Indicator 9 - human capital value added (hcva),
Indicator 10 - revenue per employee (rpe),
Indicator 11 - time lost due to accidents or injuries.

Other HR process efficiency indicators

Training efficiency and performance management require special analysis. Performance management and training efficiency are cornerstones of the Talent Management approach. All of

this significantly influences employee satisfaction rates. Additionally, one of the absenteeism indicators and simplest indicator of organizational culture (diversity) are presented for further application.

Indicator 12 - performance review completion ratio

First of all, it is necessary to emphasize that, on the global market, companies are striving to shift from the annual evaluation system to permanent monitoring, more frequent interviews with employees and provision of feedback on the work as soon as possible (not only periodically). These postulates are based on the fact that feedback on work should be timely, specific and realistic. By this we only wish to emphasize once again the general importance of evaluation of performance for individuals and the company. In the systems where periodical evaluation is used, it is necessary to monitor the number of completed templates and to strive that it reaches 100%. In order to ensure that everyone is evaluated, it is necessary to link the performance evaluation with awarding, advancement and professional development, and, in addition, it is preferred to set to the assessors one managerial goal which includes provision of feedback on work and employee career leading.

Indicator 13 - training return on investment

Besides the training return of investment effectiveness and quality of training should be regularly measured and included in training methodology.

As training of employees is long-lasting and cost-intensive category, this requires analytical and dedicated approach and monitoring of all steps of professional training cycle.

In general, effects of return of this type of assets are measured through advancement of employees whereof development is invested in, thereafter through successful retaining of such employees within the company and through increase in the overall level of knowledge and skills which facilitate the working process or increase efficiency.

Indicator 14 - Absenteeism Bradford factor,
Indicator 15 - diversity index.

3. QUALITY ASSESSMENT

Primarily to determine the quality of the KPIs we defined, we have conducted Data Envelopment Analysis (DEA). DEA is a mathematical programming methodology [1], [2], initially developed as methodology for assessing the comparative efficiencies of organizational units [3]. It has been used successfully for determination the relative performance of a set of units, usually called decision-making units (DMU). DEA is a non-parametric method of choosing a benchmark and then measuring efficiency with multiple inputs, multiple outputs, and no market prices (DEA uses linear programming to compute ‘weights’ or ‘shadow prices’ as the alternative to them).

The method assumes that there is no random noise, while the data used to represent inputs and outputs are correctly known, and it does not matter how many variables are needed. Also, it is assumed that there is no unique inputs or outputs.

The objective of the DEA is to identify the DMUs that produce the greatest amount of outputs by consuming the least amount of inputs. A DMU is defined as efficient if the ratio of weighted sum of outputs to the weighted sum of inputs is the highest. In our study we defined five DMUs:

dmu_1 represented SR IM, with data collected for 2017,
dmu_2 represented Srbija Voz with data collected for 2016,
dmu_3 represented Srbija Voz with data collected for 2017,
dmu_4 represented Srbija Cargo with data collected for 2016, and
dmu_5 represented Srbija Cargo with data collected for 2017.

In the study, we used linear programming model defined as:

$$maximize \sum_r u_r \cdot y_{rjo} \tag{1}$$

subject to:

$$\sum_i v_i \cdot x_{ijo} = 1 \tag{2}$$

$$\sum_r u_r \cdot y_{rj} - \sum_i v_i \cdot x_{ij} \leq 0 \; \forall j = 1, \dots, n \tag{3}$$

$$u_r, v_i \geq 0 \; \forall r, i \tag{4}$$

In order to determine quality of defined KPIs, we have used two different DEA models. Our main goal was to establish quality level of compound key performance indicator "Human Capital Value Added".

So, firstly we defined simple DEA model with only one input and one output (Table 1):

Input	Output
Salary Competitiveness Ratio	Human Capital Value Added

We obtained results given in Table 2:

DMU	Salary Competitiveness Ratio	HCVA	Efficiency	Relative Efficiency
dmu_1	0.8488	1347.71	1587.721	0.889216
dmu_2	0.6979	1143.28	1638.167	0.917468
dmu_3	0.8374	987.97	1179.848	0.660783
dmu_4	0.8484	1514.91	1785.53	1.000000
dmu_5	0.8511	1160.78	1363.817	0.763816

From Table 2 is obvious that the dmu_4 (Srbija Cargo with data collected for 2016) is the efficient DMU, while all the other values represent efficiency of related DMU relative to dmu_4.

After that, we defined another DEA model, in order to check whether the ordinary inputs and outputs will "select" the same DMU as the most efficient one. This time, we have used common inputs and one output, shown in Table 3:

Input	Output
Operational Costs	Operational Revenue
Employment Costs	

We have obtained:

DMU	Operational Costs	Employment Costs	Operational Revenue	Relative Efficiency
dmu_1	14359669	8640737	14251288	0.583753
dmu_2	7212558	3022209	6997098	0.889195
dmu_3	6841321	2573267	6426763	0.891620
dmu_4	9616730	4100974	10395275	1.000000
dmu_5	9781397	3134680	9913157	0.944345

We obtained the same DMU as the most efficient one. Although we didn't get the same rank order, we could conclude that KPI "Human Capital Value Added" was properly selected to perform management performance evaluation.

Further, we have conducted the sensitivity analysis, in order to define how much DMU input values should be changed for each DMU, to set that DMU as the most efficient one, but since our goal wasn't to really evaluate company performance management through DEA, but using KPI we defined, we were satisfied with the obtained results.

The same analysis should be conducted for quality assessment of "Absenteeism Bradford factor", as another composite, complex indicator, but it wasn't carried out due to the lack of the data.

4. CONCLUSIONS

As a result of the analysis, the following conclusions have been drawn regarding the achievement of a better Success Management System, which is possible in the implementation of a series of activities:

- Improved awareness and coordination of information at different hierarchical levels through optimization of the communication system;
- Optimizing the system for allocating responsibilities for increasing labor productivity;
- Updating of the system for monitoring, evaluation and compensation of labor;
- Optimization of the training and retraining system for the employees;
- Development of information technologies and decision-making system;

In the planning process, it is appropriate to use a method to ensure continuity of the process, namely: planning, monitoring and reviewing the work of the employees.

Apart from the usual, several complex indicators have been defined. The quality of such indicators was verified using the Data Envelopment Analysis, through two, mutually independent models. As for both models we have obtained the same efficient DMU, we can conclude that selection of the "Human Capital Value Added" as key performance indicator was justified and that indicator can be used to performance management assessment of the companies.

REFERENCES

[1] Charnes, A., Cooper, W.W., and Rhodes, E. (1978). Measuring the efficiency of decision-making units. European Journal of Operations Research 2: 429-444

[2] Charnes, A., Cooper, W.W., and Rhodes, E. (1981). Evaluating program and managerial efficiency: an application of Data Envelope Analysis to program follow through. Management Science 27: 668-697.

[3] Farrell, M. J. (1957). The measurement of productive efficiency. Journal of the Royal Statistical Society, Series A, 120: 253-90.

[4] Continuous Performance Management,
https://www.clearreview.com/uploads/media/ebook-CR-performance-management.pdf

[5] Human Resource Management Practices Questionnaire
http://www.buruniv.ac.in/mbahr/HRsurvey.html

[6] Performance Appraisal - Human Resources Interview Questions & Answers
https://www.careerride.com/Interview-Questions-HR-Performance-appraisal.aspx

[7] Skibniewski, M. J. & Ghosh, S. (2009). Determination of Key Performance Indicators with Enterprise Resource Planning Systems in Engineering Construction Firms. Journal of Construction Engineering and Management, 135 (10), 965-978.
http://dx.doi.org/10.1061 /(ASCE)0733-9364(2009)135:10(965)

[8] Ulrich, D. & Brockbank, W. (2005). The HR value proposition. Massachusetts: Harvard Business School Publishing.

[9] Gabčanová Iveta, Human Resources Key Performance Indicators,
https://www.cjournal.cz/files/89.pdf

[10] Human Resources KPI List, https://www.assessteam.com/human-resources-kpi-list/

TAX EVASION FLAG
OF THE CONTEMPORARY ECONOMY

Abrudan Ioana Corina[1]

DOI: https://doi.org/10.31410/EMAN.2019.243

Abstract: *Tax evasion is considered to be the most widespread economic crime, of major importance, which all states face to a greater or lesser extent. Globalization is the main phenomenon that has made it more difficult to detect and stop tax evasion and tax evasion. The magnitude of this phenomenon has no time and space boundaries. Eradicating tax evasion is virtually impossible, so states are seeking effective measures to curb this worrying phenomenon. Within the European Union, Member States are directly affected by this phenomenon, in particular due to the multiple gaps identified in the economics and legislation of the member countries. Tax evasion has become a topic the European Union has been researching for a long time, which it is trying to combat through EU-wide fiscal policies. Tax policies involve identifying, analyzing, evaluating and monitoring the risks associated with the phenomenon of tax evasion at national and international level.*

Keywords: *tax evasion, tax policies, risk, economy, legislation, state, fraud.*

1. INTRODUCTION

Tax fraud is steadily rising, though, over time, the fight against tax evasion has been attempted in different ways, but due to the complexity of the sale, it has failed.

State involvement in economic life has seen moments of growth or stagnation, but there is always a relationship between these two powers, which has constantly changed.

There is a negative aspect of the relationship between the state and the economy, according to Picciotto: „Taxation is the most direct point of intervention between the state and the economy."

Since ancient times, state leaders have sought to compel citizens through tax law to pay taxes, and since ancient times it has been apparent that people have tried to evade tax.

Globalization is the main phenomenon that has made it more difficult to detect and stop tax evasion and tax evasion at EU and international level. Within the EU, Member States are directly affected by this phenomenon, in particular due to the significant gaps identified in the economics and legislation of the member countries. Against this background, it can be appreciated that globalization is a favorable factor for enhancing links and cooperation between Member States, especially in order to harmonize fiscal policies at Union level so that it is possible to break the techniques used by large companies to avoid paying taxes in the jurisdictions in which they operate. Moreover, the aim of European legislation in the current context is to apply the principle of loyal competition and corporate responsibility to halt the practices of multinationals to avoid paying taxes.

[1] December 1918 University of Alba Iulia, Romania, Str. Tasnad, nr.3, Cluj-Napoca

2. RESEARCH METHODOLOGY

The theme chosen is of particular importance because it presents a current phenomenon for most states due to its devastating effects in society.

The work is placed in an area of intersection of two areas of major importance in society: legal and economic.

Through the thematic approach we follow both the theoretical presentation of the main types of frauds of economic and financial nature and the causes that favor its occurrence.

The main objective of this research work is to deal with the phenomenon of economic and financial fraud, and aims at presenting and analyzing the current legislative framework and the set of regulations regarding the phenomenon of fraud.

At the basis of the research process, the objective was considered as: study of the specialized literature, such as: scientific papers, textbooks, articles from magazines, foreign literature and from the country, all of which are mentioned in the bibliography of the paper; identifying and presenting the concept of the principle of tax law, defining the theoretical and practical foundations on the concepts of fraud and tax fraud; the analysis of the concept of fraud regulated by the main institutions, with attributions in discovering, preventing, combating and resolving tax fraud.

Tax evasion has become a topic that the European Union has been researching for a long time, which it is trying to combat through EU-wide fiscal policies.

Mobilizing domestic revenue is essential to financing sustainable development - only self-sufficiency will allow for the development of fully functioning states with thriving political representation systems and economies that reflect the preferences expressed by societies on, for example, inequality. Tax evasion and tax evasion are important insofar as they affect both the volume and nature of public finances. Alex Cobham, in his paper, estimates the total cost of developing countries of these losses as $ 385 billion annually in 2005.

There are countries in Europe, but also in the rest of the world, who maintain a low tax rate, and the law does not allow the exchange of information on taxpayers and bank account holders. These countries, also known as tax havens, are a source of attraction for investors, for obvious reasons.

In the table below, the tax rates of entities in European countries over the last 10 years are highlighted:

The most common tax havens in Europe and the world are countries that have a lower tax rate for foreign companies and do not disclose financial information about existing investors.

Table 1.1 Evolution of the tax rates of the EU member states, 2008-2017.

Country	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Austria	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Belgium	33,99%	33,99%	33,99%	33,99%	33,99%	33,99%	33,99%	33,99%	33,99%	33,99%
Bulgaria	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Cyprus	10%	10%	10%	10%	10%	12,5%	12,5%	12,5%	12,5%	12,5%
Croatia	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Denmark	25%	25%	25%	25%	25%	25%	24.5%	22%	22%	22%
Estonia	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%
Finland	26%	26%	26%	26%	24,5%	24,5%	20%	20%	20%	20%
France	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%
Germany	29,51%	29,44%	29,41%	29,37%	29,48%	29,55%	29,58%	29,72%	29,72%	29,79%
Greece	25%	25%	24%	20%	20%	26%	26%	29%	29%	29%
Ireland	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%
Italy	31,4%	31,4%	31,4%	31,4%	31,4%	31,4%	31,4%	31,4%	31,4%	24%
Latvia	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Lithuania	15%	20%	15%	15%	15%	15%	15%	15%	15%	15%
Luxembourg	29,63%	28,59%	28,59%	28,8%	28,8%	29,22%	29,22%	29,22%	29,22%	27,08%
Malta	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Netherlands	25,5%	25,5%	25,5%	25%	25%	25%	25%	25%	25%	25%
Poland	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Portugal	25%	25%	25%	25%	25%	25%	23%	21%	21%	21%
UK	30%	28%	28%	26%	24%	23%	21%	20%	20%	19%
Czech Republic	21%	20%	19%	19%	19%	19%	19%	19%	19%	19%
Romania	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Slovakia	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Slovenia	22%	21%	20%	20%	18%	17%	17%	17%	17%	19%
Spain	30%	30%	30%	30%	30%	30%	30%	28%	25%	5%
Sweden	28%	26,3%	6,3%	6,3%	6,3%	22%	2%	22%	22%	22%
Hungary										
Mediate UE	**23,17%**	**23,11%**	**22,93%**	**22,7%**	**22,51%**	**22,75%**	**22,39%**	**22,2%**	**22,09%**	**21,51%**

Source: own processing based on data from the EUROSTAT website

In most tax havens, no corporation tax is paid at all, or, if paid, the tax rates are very low. The existence of these tax havens puts pressure on tax rates in other countries despite the fact that there are bodies that try to tackle this problem through global or continental tax policies. The main advantages of tax havens can be: taxing income, taxing income at low tax rates, negotiating foreign tax rates, non-taxation of income that is not realized on the territory of that tax haven, etc.

Centralized, in the table below, we can find the names of 10 countries, the most common tax havens and their tax rates:

Table 1.2 Evolution of tax rates of countries considered tax havens

Countries	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bahamas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Switzerland						36%	34,5%	34,5%	34,5%	36%
Ireland	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%	12,5%
Luxembourg	29,63%	28,59%	28,59%	28,8%	28,8%	29,22%	29,22%	29,22%	29,22%	27,08%
Island Man	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cayman Islands	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Netherlands	25,5%	25,5%	25,5%	25%	25%	25%	25%	25%	25%	25%
Mauritius	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Singapore	18%	18%	17%	17%	17%	17%	17%	17%	17%	17%
Bermuda	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Note: Luxembourg was also considered a country of tax havens for privacy laws and policies on investor economic information, which favors investment in Luxembourg.
Source: of the author's projection

As can be seen from the table, most tax havens have a profit tax rate of 0%. The other countries (e.g. Ireland) negotiate with the big corporations the tax quota, most of them under the national quota of 12.5%.

Companies take advantage of this opportunity not to pay tax on profits or certain income or to pay taxes at lower rates. In this respect, large companies open their subsidiaries in tax havens and transfer their intellectual property to another subsidiary located in another tax haven to avoid paying taxes.

In recent years, the academic and policy debate on development finance and development aid has raised the issue that tax evasion can undermine the ability of developing countries to finance their public sectors. This view is based, among other things, on the perception that the underground economy in these countries is higher than in developed countries. The term „underground economy" has no generally accepted definition. But in the context of tax and revenue mobilization, a useful definition of the underground economy would include „undeclared revenue from the production of legal goods and services, whether from monetary transactions or barter transactions, therefore all economic activities that would generally be taxable, reported to tax authorities „(Schneider & Enste 2000, pp. 78-79).

Indeed, there is a negative correlation between the rates of tax revenue and GDP and some estimates of the size of the underground economy, although it is not necessarily an estimate based on the above definition. Many observers have concluded that a large underground economy actually generates a fall in tax revenue. But this view is not uncontroversial.

A number of recent publications have linked income tax evasion and tax evasion in developing countries to the financial support these countries receive through development aid. Many of these contributions conclude that aid dependency could be significantly reduced if developing countries manage to reduce tax evasion and avoidance. Reducing dependence on aid might have a number of advantages. Firstly, many aid projects require additional expenditure. Lack of complementary resources may reduce the effectiveness of development aid. Secondly, development aid is more volatile than domestic tax revenues. Third, mobilizing domestic revenue rather than dependency on aid is seen as a means to increase the political participation of the domestic population in public sector decisions. Fourth, the focus on development aid is partly determined by donors and may differ from the priorities perceived by developing countries themselves.

The underground economy is the one that points to a major problem in tax legislation, and it is measured at one fifth of GDP. Thus, tax evasion and tax evasion prevent the state from collecting revenue in line with national and international tax policies. The figure below provides estimates of the size of the underground economy in 2011:

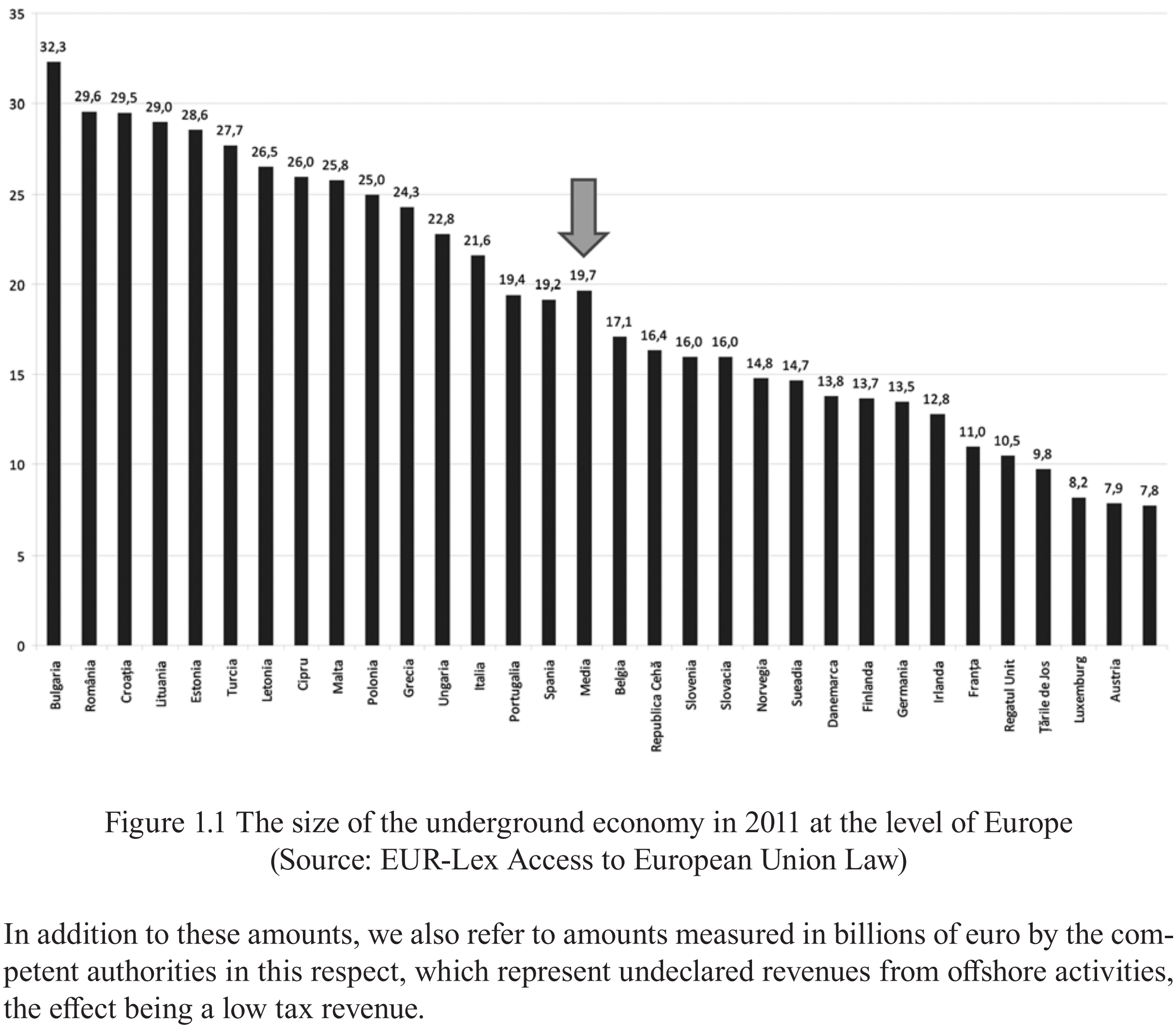


Figure 1.1 The size of the underground economy in 2011 at the level of Europe
(Source: EUR-Lex Access to European Union Law)

In addition to these amounts, we also refer to amounts measured in billions of euro by the competent authorities in this respect, which represent undeclared revenues from offshore activities, the effect being a low tax revenue.

Taking into account the rapid globalization that has taken place, a globalized fiscal approach is needed in this respect, through the issuance of general tax policies valid in countries on all continents.

Collecting tax revenue by common standards would improve the quality of life in partner countries. Thus, countries that are considered to be major financial centers and have aggressive laws of banking secrecy would have to give up banking secrecy and automatically exchange information with other countries. According to the reports of the European Commission, Switzerland and Cayman Islands together, in 2011, have accumulated non-bank deposits amounting to 1.352 billion dollars, which represents 20% of the total non-bank deposits in the world.

In the following, the number of non-bank deposits opened in 5 of the most important tax havens is shown graphically:

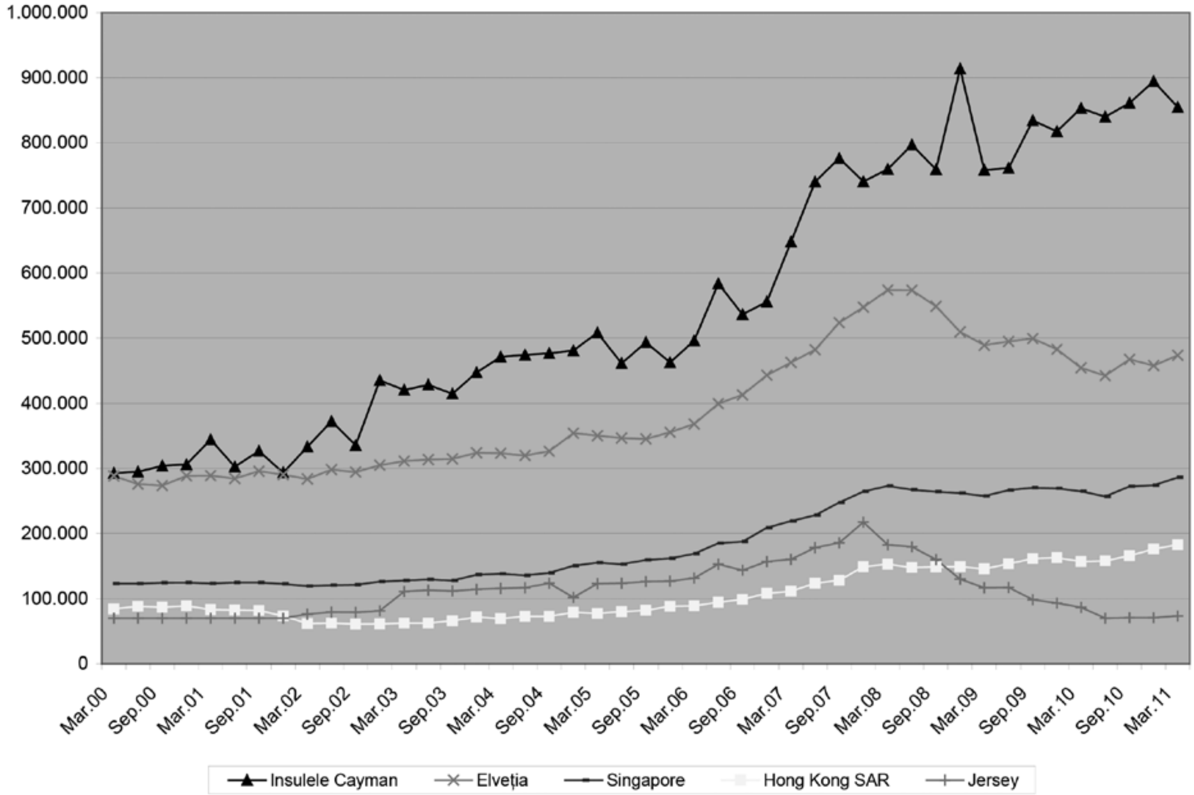


Figure 1.2 Non-bank deposits opened in 5 tax havens
(Source: Report European Commission on the concrete ways of stepping up the fight against tax evasion)

Thus, in order to reduce these non-bank deposits in tax havens, the EU needs to reconsider the existing economies agreements with countries such as Switzerland, San Marino, Monaco, Liechtenstein and Andorra.

The oldest and ultimately the only sustainable source of development finance is taxation. No vision of a sustainable future equilibrium for countries - however optimistic or pessimistic about levels of human development and economic welfare - may be based on assuming permanent dependence on aid. As such, the long-term goal must be to bring government revenue on a sustainable basis, in line with the levels of expenditure required.

With these different time horizons, the importance of tax evasion and tax avoidance for development is evident. Tax evasion has evolved rapidly in the development agenda in recent years. Following Oxfam's strong 2000 earnings report, billions of government revenue from developing countries was lost using corporate tax havens. The Enron and WorldCom cases, among others,

have brought to the public for the first time a series of licit and, above all, illicit tax practices. The Tax Justice Network, an umbrella group that reflects a wider interest among NGOs, has been increasingly successful in generating media interest and provoking a business response. However, it is not possible to provide a simple link between the fees paid and the availability of funds to finance development. To begin to address the question of how the impact of tax evasion and avoidance on development is necessary, a meaningful analysis is needed. This can be seen by taking into account an imaginative exercise: if a poor country in which 40% of the economic activity is completely non-taxed, some questions arise: what would be the impact (on economic activity, growth, investments and employment, government revenue and social spending, inequality and development) if the government was suddenly able to make such avoidance completely impossible? Or imagine a rich country that provides business subsidies in the form of tax gaps in foreign business registration: who would win and who would lose if this were illegal?

In order to take account of the policy of combating tax evasion, it is first and foremost necessary to set the underlying objectives. Political decision-makers cannot be motivated by a simple moral position (for example, the fact that a certain behavior is „bad”) without examining the implications. The speed with which anti-avoidance measures can be effective is not clear.

It goes without saying that the ability to raise this funding depends on a taxable economic activity that takes place and that both domestic and international trade are the most important components of economic growth. It is not clear about it, for example, what would be the moral distinction between the following:

- tax minimization strategies, from transfer prices to the creation of special purpose vehicles or nominal seat transfer;
- sub-reporting;
- bribery of tax officials;
- refusal to pay;
- government lobbying to reduce tax liability or the effective tax burden on the system;
- Lobbying by multinationals of the governments of the „home” countries to exert pressure on the „host”;
- Promoting lobbying through international institutions (IMF, World Bank, WTO) with similar effects.

3. LAWS AND REGULATIONS TO REDUCE TAX EVASION IN NATIONAL AND INTERNATIONAL LAW

The specialized literature analyzes the relationship between accounting and taxation. In this sense, the specialists argue that „accounting appeared as a necessity, in order to supervise and control the resources, expenses and results obtained from the activity of the economic agents, based on the most important accounting principle, that of the true image.”

The table below presents the rules of the current legal framework for the protection of the financial interests of the European Union

Table 1.3 International Anti-Fraud Legislation

THE LEGISLATIVE FRAMEWORK OF THE EUROPEAN UNION	CLAIMS
Articles 310, 317 and 325 of the Treaty on the Functioning of the European Union	Their provisions include measures to combat fraud and any illegal activity affecting the financial interests of the European Union.
Regulation (EU, Euratom) 883/2013 of the European Parliament and of the Council of 11 September 2013.	Its provisions provide for investigations by the European Anti-Fraud Office (OLAF) and the repeal of Regulation (EC) Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Regulation (Euratom) No 1074/1999.
Council Regulation (EC, Euratom) Council Regulation (EC) No 2988/95 of 18 December 1995	Concerning the protection of the financial interests of the European Communities.
Regulation (Euratom, EC) No. Council Regulation (EC) No 2185/96 of 11 November 1996	Provides legal advice on on-the-spot checks and inspections carried out by the Commission in order to protect the financial interests of the European Communities against fraud.
Decision (EU, Euratom) No 335/2014 of the Council of 26 May 2014	Establishes the European Union's own resources system;
Regulation (EU, EURATOM) No 966/2012 of the European Parliament and the Council on 25 October 2012	Strengthens the financial rules applicable to the general budget of the Union and repeals Council Regulation (EC, Euratom) No 1605/2002; .
Convention drawn up on the basis of Article K.3 of the Treaty on European Union	By this provision, it protects the financial interests of the European Communities and the three related Protocols.

Source: Author's research and projection

The table below lists some sanctions granted by states other than those mentioned above for the commission of tax fraud:

Table 1.4 Sanctions granted by different states of the world for tax fraud

Country	Sanctions
Austria	The tax evasion, according to the Finanzstrafgesetz, is punishable by a fine of up to two years imprisonment, depending on the degree of social danger of the deed. The administrative-tax authorities may apply the fine and imprisonment for up to three months only in cases where the amount of the damage exceeds a certain threshold, reaching the court.
Slovenia	Tax evasion is punishable by imprisonment for up to three years. In the case of aggravated tax evasion, imprisonment of up to five years may be imposed.
SUA	Violations of tax obligations vary, so that for each category of facts either a fine of no more than $ 500,000 may be applied, typically the amount of the damage or the imprisonment for a maximum of five years.
France	Tax penalties, usually fiscal fine, or criminal sanctions, respectively criminal fines or imprisonment, are applied as appropriate.

Source: Author's research and projection

4. FRAUD CONTROL AND PREVENTION BODIES IN THE ECONOMIC AND FINANCIAL CONTEXT AT EU LEVEL

In the table below we find a comparison between the purpose and objectives of the control bodies at the level of the European Union

Table 1.5 The purpose and objectives of control bodies at the level of the European Union

ORGANIZATIONS AT THE LEVEL OF THE EUROPEAN UNION	REMARKS
The European Anti-Fraud Office (OLAF) is part of the European Commission but is operationally independent.	It carries out independent investigations into acts of fraud and corruption involving EU funds It develops a robust anti-fraud policy in the EU It is empowered to do both internal and external investigations
Regulation (EU, Euratom) 883/2013 of the European Parliament and of the Council of 11 September 2013.	Investigations carried out by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Regulation (Euratom) Council Regulation (EC) No 1074/1999;
Council Regulation (EC, Euratom) Council Regulation (EC) No 2988/95 of 18 December 1995.	It has the role of protecting the financial interests of the European Communities
Regulation (Euratom, EC) No. Council Regulation (EC) No 2185/96 of 11 November 1996.	It carries out on-the-spot checks and inspections carried out by the Commission in order to protect the financial interests of the European Communities against fraud.

Source: Author's research and projection

5. CONCLUSION

The phenomenon of tax evasion in the world still requires research and analysis to arrive at a correct and complete perception of its dimensions. We also affirm this in relation to an aspect that is likely to convince, in our opinion, that tax evasion is far from being exhausted as an object of investigation: the framework law which, according to its name, should regulate the prevention and combating of tax evasion that is in fact only a tool to combat, preventing it from being represented in its provisions.

It is necessary to develop and implement procedures for interinstitutional cooperation with a view to identifying and timely reporting fraud, but also to combat them.

It is absolutely necessary to continuously train, at the highest level of professional training, to meet the challenges of any kind and, at the same time, to respect the highest standards of ethical behavior and integrity.

As a result of the research we found that one of the problems faced by European Union legislation in the field of tax regulations is the lack of correlation between these laws. Furthermore, the laws are not clear about the provisions and implementation instructions. Thus, taxpayers, but also the organs of the empowered states, have more opportunities to escape from the law.

We believe that this anti-fraud strategy requires further improvements in the fraud risk assessment in order to respond satisfactorily to exposure to the fraud offense.

Another important aspect in combating fraud, we consider to be prevention. Computer-based controls aimed at preventing and detecting fraud should be part of those designed to ensure the legality and regularity of operations and should be supplemented by the competent authorities within each Member State of the European Union.

In our opinion, education is a determinant factor that could mitigate the harmful effects of this economic scourge. States' competent bodies must devise a strategy to develop civic awareness about the taxpayer's obligations to the state, which a taxpayer must perceive as a protector, not as an enemy.

For a better understanding it is very important to publish specialized papers that facilitate the unitary interpretation of the normative framework, the adoption and application of a modern and transparent legislative framework and the bringing to the attention of the taxpayers.

REFERENCES:

[1] Berghout, E şi Renkema, T. *Methodologies for IT investment evaluation*: *a review and assessment, apărută în Information Technology Evaluation Methods and Management*, Idea Group Publishing, 2001;
[2] Cobham, A., 2005, Tax evasion, tax avoidance and development finance, Working
[3] Paper Number 129, QEH Working Paper Series – QEHWPS129;
[4] Fuest, C. & Riedel, N., 2009, Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature, UK Department for International Development;
[5] Gupta, Sanjeev and Shamsuddin Tareq (2008), Mobilizing Revenue, Finance and Development 45;
[6] Hurjui Ovidiu, Sandu Gheorghe, Offshore areas-The key to success in the fiscal regime, The Annals of the „Ștefan cel Mare" University, Suceava, Volume 9, 2009.
[7] J. Dabin, Theorie generale du Droit, Dalloz, Paris, 1969;
[8] Johner, H., Fujiwara, S., Yeung, A., Stephanou, A., Whitmore, J., *Deploying* a Public Key Infrastructure, IBM, 2000;
[9] Sikka, P., Willmott, H., (2010). The Dark Side of Transfer Pricing: Its Role in Tax Avoidance and Wealth Retentiveness. Critical Perspectives on Accounting, Vol. 21(4), pp. 342-356.
[10] Select USA, The U.S. *Software and IT Services Industry*, n.d
[11] Sikka, P., Willmott, H., (2010). The Dark Side of Transfer Pricing: Its Role in Tax Avoidance and Wealth Retentiveness. Critical Perspectives on Accounting, Vol. 21(4);
[12] Sinn, H-W, 1990, Tax Harmonization and Tax Competition in Europe, European Economic
[13] https://ec.europa.eu/anti-fraud/about-us/mision_ro
[14] https://ec.europa.eu/info/departaments/european-anti-fraud-office_ro
[15] http://www.scritub.com

WORKPLACE BEHAVIOR
AND COMMITMENT TO THE ORGANIZATION

Silvana Pasovska[1]
Trajko Miceski[2]

DOI: https://doi.org/10.31410/EMAN.2019.253

Abstract: *Workplace behavior is a scheme of actions for members of an organization that directly or indirectly affects its effectiveness. Part of the important workplace behaviors are work behavior and productivity, absence, substitution of workers, and organizational fervor. However, dysfunctional behaviors may occur in the organizational environment. Work behavior is the sum of all behaviors associated with the work the organization expects from the individual. That is why they originate from the psychological agreement. For some jobs, work behavior can be more precisely defined and easy to measure.*

Commitment to the organization is a stance that reflects the identification of the individual with the organization and the connection with it. A person who is largely committed to work is likely to be considered a true member of the organization to avoid small sources of dissatisfaction and to see himself as a member of the organization. In contrast, it is likely that someone who feels less committed to the organization will be seen as a stranger in order to express dissatisfaction and not be seen as a further member of the organization.

Keywords: *individual, organization, behavior, character, attitude, perception, stress, creativity.*

1. INTRODUCTION

Today, a large number of workers work and, during breaks, realize that their success is measured by how much they work. Carried out by the desire for success and career advancement, the issue of managing the personal behavior of individuals - employees in organizations is highlighted. Also, the influence of the management of personal behavior as a factor for building organizational behavior is of particular importance.

In order to obtain quality knowledge in this field in this paper, we will try to explain the nature of the relationship between an individual and the organization, the significance of the character of the individual and the characteristic of the behavior of the employees, the attitudes of the employees and their perceptions of behavior. We think that by processing this topic we will be more aware of the management of the personal behavior of employees, as they would use it to build organizational behavior in the company as future managers.

2. UNDERSTANDING INDIVIDUALS IN ORGANIZATIONS

When we say an understanding of the individuals in the organization, it is primarily meant to establish a *psychological contract* and to align the personality with the workplace. *Psychological contract* is the sum of all the expectations of the individual in terms of how he or she will

1 Scientific tobacco institute - Prilep, University St.Kliment Ohridski - Bitola, „1st of May" bb,7000 Bitola, Republic of Macedonia

2 Faculty of economics, University St. Goce Delcev - Stip,"Krste Misirkov"10A,2000 Stip, Republic of Macedonia

contribute to the organization and what the organization will provide in return. This is a psychological contract that is not written nor discussed separately for the conditions. The psychological contract is similar in many ways to the standard legal contract, but it is less formal and not so well defined. The basic elements of the psychological contract are contributions and motivations. An individual in various ways contributes to the organization through skills, knowledge, abilities, time, loyalties, and so forth. For the given contributions, the organization returns by providing motives for the individual, such as: material rewards, for example salary or career opportunities, abstract, as security at the workplace and status. So, as an employee contributes to the organization, with the employment itself, the individual thinks he will earn an attractive salary and will have the opportunity to progress, consequently he will expect that those rewards follow him. On the other hand, if one of the parties considers that there is imbalance or inequality in the contract, it can affect for changes. So, the individual or the employee can ask for a salary increase or promotion, while the organization influences in such a way that it can ask the individual to improve his skills by training, migrating to work or firing.[3.]

The effective alignment of the personality with the work is an important element in dealing with individual behavior in organizations. The alignment of the personality with the character is the extent to which the individual's contribution is relevant to the motives offered by the organization.

The poor compliance of the employee with the workplace can lead to a number of unwanted consequences, such as dissatisfaction and poor achievement. Of course, such a precise level of perfect compliance between the personality and the workplace is rarely achieved. There are three reasons for this:

1. *Organizational selection procedures are not perfect* - Organizations can assess skill levels of the employees when they make employment decisions and can improve them through training. But even the simple dimensions of achievement are difficult to quantify objectively and validly.
2. *Both people and organizations are changing* - The individual for whom the new work is stimulating and exciting, after a few years can become dull and monotonous.
3. *Every individual is unique* - Measuring skills and achievements is difficult enough. Estimating the needs, attitudes and character is far more complicated. Each of the individual differences makes the process of merging individuals with their workplaces difficult and complicated.[4]

3. TYPES OF WORKPLACE BEHAVIOR

Work behavior is the sum of all behaviors associated with the work that the organization expects from the individual. That is why they originate from the psychological contract. For some workplaces, the work behavior can be more precisely defined and easily to measure.

There are the following types of workplace behaviors:

---

3 Ricky W. Griffin (2010), "Principles of Management", Student Achievement Series, translation from English language, Geneks Kochani, pg.224

4 Ricky W. Griffin (2010), "Principles of Management", Student Achievement Series, translation from English language, Geneks Kochani, pg.225

Withdrawal Behavior

This type of behavior is a specific type of work behavior that involves absenteeism and replacement of workers. The occurrence of absence is encountered when the individual does not appear at work. The reason may be legitimate (illness, court decision, death in the family) or fake. When an employee is absent, his work does not end and in its place must hire a replacement. In both cases, it is likely that there will be changes in the quantity and quality of work.

The organization often has costs when replacing workers who have given up, but if the replacement involves particularly productive people, then the costs are even bigger. The efforts to effectively manage replacements are often problematic, even in organizations that focus on rewarding high-achieving employees. Of course, the occasional replacement of workers is inevitable, and in some cases it is desirable.

Organizational citizenship

Organizational citizenship is an individual behavior that gives a full positive contribution to the organization. For example, an employee who performs work with good quantity and quality, however, he refuses to work overtime, does not want to help the newcomer and is not interested in contributing in any way to the organization that is outside the assigned tasks. So, although a person can be considered as a worker with good achievement, he is not a good organizational subject. Another employee may display a comparable level of organizational belonging. For example, the same employee remains late and is considered as helpful and dedicated to the success of the organization. This worker is likely to be considered as an organizational member although the level of achievement is similar to the first worker.

Dysfunctional Behavior

Dysfunctional behavior is behavior that more and more hinders the organization than it helps. Two of the usual behaviors that are already mentioned are the absence and replacement of workers. Other forms of dysfunctional behavior are theft and sabotage, which can bring large financial costs to the organization. Sexual and racial harassment can also harm the organization, indirectly by reducing the enthusiasm, creating fear and firing valuable employees; also, direct damages through a financial liability if the organization does not respond appropriately.[5]

4. CHARACTERISTICS OF THE INDIVIDUAL IN THE ORGANIZATIONS

The five basic personality traits that are especially important to organizations, which are still called the big five of personality traits, are: agreeableness*, conscientiousness, negative emotionality (“neuroticism”), extroversion and openness.*

Psychologists have identified literally thousands of character traits and dimensions according to which individuals differ from one to another. But lately, the researchers have identified five basic personality traits that are particularly important to the organizations. Because the five traits are so important, they are also called the „The Big Five” of personality traits.

- People who are high in *agreeableness* tend to be more cooperative with others. Some people are usually kind, cooperative, tolerant, showing understanding and good intent

5 Ricky W. Griffin (2010), “Principles of Management”, Student Achievement Series, translation from English language, Geneks Kochani, pg.243-244

when working with others. Others are often easily irritable, impatient, incompetent and generally antagonistic toward others. These people differ on the dimension of agreeableness. Although the researches have not explored the full effects of the people who are high in agreeableness, it seems likely that those will easily develop working relationships with the colleagues, employees and managers from the higher positions, while those low in this trait do not establish particularly good working relationships. The same scheme can also be used for relationships with the customers, suppliers, and other key constituent elements of the organization.

- *Consciousness* is related to the number of goals on which the individual concentrates. People who focus on only a few goals are likely to be organized, will work systematically, carefully, responsibly and with discipline, while seeking to achieve their goals. On the other hand, people who take a wide range of goals are considered less organized, careless, irresponsible, and insufficiently thorough and disciplined. Studies have shown that the more conscientious people show better results than the less conscientious people when dealing with other different types of work tasks. Of course, the scheme seems logical because the more conscientious people will take the work seriously and perform it with great responsibility.
- The third trait are the negative emotions ("neuroticism"). People with less negative emotions are relatively balanced, calm, durable and confident. But people with more negative emotions are more irritable, unreliable, reckless and often change mood. Those who are not so negative are expected to better cope with the stress from work pressure and tension. Stability can help them make the impression, that they are more trustworthy than colleagues who are less stable.
- *Extroversion* reflects the level of comfort in the relationships. Extroverts are sociable, talkative, intrusive and open to new relationships, while introverts are less friendly, more reserved, less talkative, and less frequently imposed, and are more reserved for realizing new relationships. According to the research, extroverts are usually better executors of the work than introverts and are more often attracted by work based on personal relationships like sales and marketing workplaces.
- *Openness* reflects the rigor of attitudes and the domain of the interests of the individual. People with high levels of openness want to hear new ideas and to change their ideas, beliefs and attitudes as a result of new information. Also, they often have a broad range of interests and are more curious, imaginative and creative. On the other hand, people low in this trait are less receptive to new ideas and rarely change their minds. It is also common to have fewer and more limited interests, and not to be so curious and creative. The willingness of the individual to accept changes can also depend on the openness.[6]

Another interesting approach to understanding individuals in organizations is the Myers-Briggs framework. In this framework, based on Karl Jung's classical work, classifies people according to four general preferences. These preferences are defined by the following criteria:

1. Extroversion (E) versus introversion (I). Extroverts receive energy when they are among people, while introverts are tired of people and it takes time for themselves to recover their energy.
2. Sensation (S) versus (I) Intuition. Types that characterize the senses prefer tangible things, while those that are more intuitive prefer abstract concepts.

6 Ricky W. Griffin (2010), "Principles of Management", Student Achievement Series, translation from English language, Geneks Kochani, pg.227

3. Thinking (T) versus Feeling (F). Thinking type base their decisions more on logic and reason, while those who characterize the process of feeling, base their decisions on feelings and emotions.
4. Judging (J) versus Perceiving (S). Judging types enjoy in endings, while perceptive types enjoy processes and unfinished situations.

In order to be able to use the frame, people must fill out a questionnaire designed to assess the character for each preference. Higher or lower results for each of the preferences are used to classify people in one of the sixteen personality types.[7]

5. EMPIRICAL RESEARCH

In this research, the main goal was to see how the appropriate behavior in the workplace is applied and what is the commitment to the organization.

The main hypothesis of the empirical research was based on the claim that *when applying appropriate behavior in the workplace and commitment to the organization it contributes to achieve higher business results and to raise the image of the organization.*

Empirical research was carried out through a *survey* in organizational entities in Prilep and Bitola, and 111 employees were surveyed, out of which 32 managers and 79 employees.

Thus, out of the total number of surveyed persons, 29% were managers, and 71% were employees in different positions.

First, it was briefly explained to the respondents how it would be the appropriate workplace behavior and the commitment to the organization.

Then the questionnaires were distributed to them with three different questions with three possible answers: *yes, no and no answer.*

For the visibility of the answers to the questions, the same will be shown in tables and in graphics.

The first question was: Do managers behave appropriately in the workplace and do they show great commitment to the organization?

Table1. Tabular presentation of the data on the first question

Questions	***Offered answers***	***Answers***			
		Managers		***Employees***	
		Value	**%**	**Value**	**%**
1. Do managers behave appropriately in the workplace and do they show great commitment to the organization?	Yes	27	84	52	66
	No	1	3	11	14
	No answer	4	13	16	20
	Total	32	100	79	100

7 Ricky W. Griffin (2010), "Principles of Management", Student Achievement Series, translation from English language, Geneks Kochani, pg.228

According to the processing of the questions and the calculated value of the X^2-test is: 10,967, and the calculated value of the contingency coefficient is 0,228. Or:

$$X^2 = 10{,}967 > X^2_{00,5} = 5{,}991$$

$$C = 0{,}228$$

The results obtained with the X^2 - test and the contingency coefficient show that the answers of the managers and the employees are not the same.

The higher calculated value for the X^2- test, which is greater than the table value, means that the answers of the surveyed managers and employees do not correspond, and the contingency coefficient with a value of 0.228 indicates a poor correlation between the answers.

This means that employees do not share their opinions with the managers, or, they do not consider that managers behave appropriately in the workplace and do not consider that they show great commitment to the organization.

In addition, a graphical representation of the answers is shown:

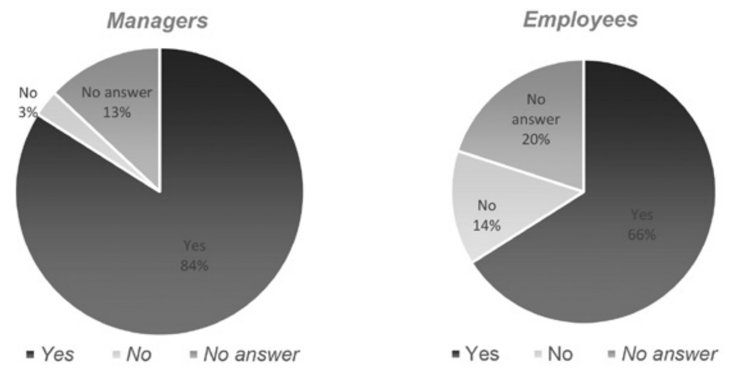


Figure 1. Graphical representation of the data on the first question

The results show that, regardless of the fact that most of the managers - 84% think that they behave appropriately in the workplace and that they show great commitment to the organization, the answers of the staff show that a smaller percentage of them agree with this statement.

The second question was: Do employees behave appropriately in the workplace and do they show great commitment to the organization?

Table 2. Tabular presentation of the data on the second question

Questions	*Offered answers*	*Answers*			
		Managers		*Employees*	
		Value	**%**	**Value**	**%**
2. Do employees behave appropriately in the workplace and do they show great commitment to the organization?	Yes	17	53	54	68
	No	6	19	7	9
	No answer	9	28	18	23
	Total	32	100	81	100

And here the calculated value of the X^2- test is: 6,011, and the calculated value of the contiguity coefficient is 0,171. Or:

$$X^2 = 6{,}011 > X^2_{00,5} = 5{,}991$$

$$C = 0{,}171$$

According to the absolute percentages of the statements of the respondents as well as the results obtained from the calculation of the values of the X^2- test and the contingency coefficient, it is concluded that the answers of the managers and the staff, although similar, are not completely identical. Because the calculated value for the X^2- test is greater than the table value, it can be seen that the answers of the surveyed managers and employees, although they are completely inadequate, and the contingency coefficient with a value of 0.171, means a weak correlation between the answers. This means that the managers do not fully share their opinion with the employees, so it is seen that managers think that employees do not behave appropriately in the workplace and do not consider that they show great commitment to the organization.

In addition, a graphical representation of the answers is shown:

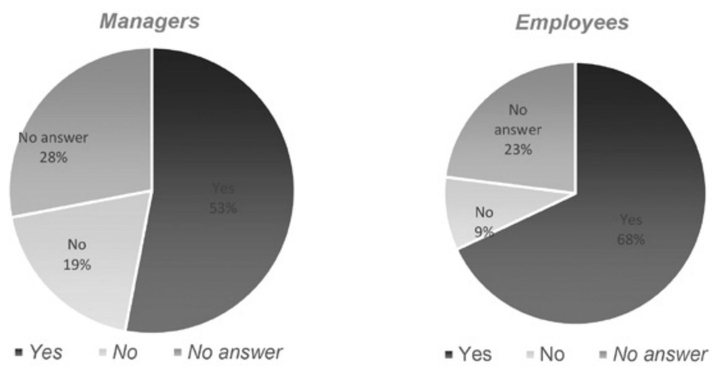


Figure 2. Graphical representation of the data on the second question

The results show that even with this question, the answers of the managers and the employees do not correspond.

So, the answers and the calculations made on the first two questions show that the answers do not correspond and that the hypothesis which was: *when applying appropriate behavior in the workplace and commitment to the organization it contributes to achieve higher business results and to raise the image of the organization,* was not confirmed. Therefore, training for both managers and employees is needed in order to apply the appropriate behavior in the workplace and the commitment to the organization.

In that respect, the next third question was set and that was: Do you think that the success of the organization's work requires appropriate behavior of all employees and a great commitment to the operation?

Table 3. Tabular presentation of the data on the third question

Questions	***Offered answers***	***Answers***			
		Managers		***Employees***	
		Value	**%**	**Value**	**%**
3.Do you think that the success of the organization's work requires appropriate behavior of all employees and a great commitment to the operation?	Yes	31	97	71	90
	No	0	0	1	1
	No answer	1	3	7	9
	Total	32	100	79	100

According to the processing of the questions and the calculated value of the X^2-test is: 4.273, and the calculated value of the contingency coefficient is 0.145. Or:

$$X^2 = 4,273 < X^2_{00,5} = 5,991$$

$$C=0,145$$

The results obtained with the X^2- test and the contingency coefficient, show that the managers and the employees have almost the same answers. The calculated value of the X^2- test that is lower than the table value, indicates that the answers of the surveyed managers and employees correspond to a certain extent, and the contingency coefficient with a value of 0.145 means a weak correlation between the answers.

This means that the managers and the employees share almost the same opinion that appropriate behavior and commitment to work are required.

In addition, a graphical representation of the answers is shown:

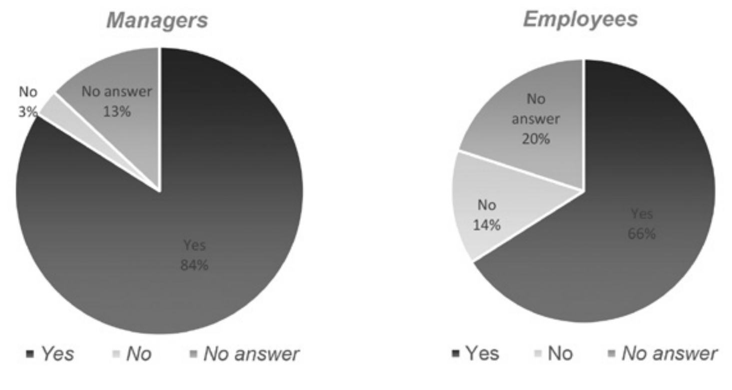


Figure 3. Graphical representation of the data on the third question

The results show that both managers and employees consider that an appropriate behavior in the workplace and a great commitment to the organization from all employees are needed.

6. CONCLUSION

For the efficient functioning of an organization, account must be taken of the details that make job satisfaction either in the case of higher-level employees or those at the bottom of the organizational hierarchy.

Care must be taken to indicate potential problems and correct errors, especially through communication.

In fact, through communication, it can prevent endangering the working atmosphere and facing problems of a different kind about the organization.

Only by reading the needs of the employees and the ability of the leader in the organization to motivate and direct the employees, only then the working climate will give the green light for undertaking the projects that are in the organization's preliminary plan.

REFERENCES

[1] Sutcliffe, K. (1994), What executives notice: Accurate perceptions in top management teams, Academy of Management Journal Volume 37, No. 5
[2] Defrank R, Konopask R and Ivancevic, J. (2000), Executive Travel Stress Perils of the Road Warrior Academy of Management Executive, vol. 14, no.2
[3] Griffin, R. (2010), „Fundamentals of Management", series of student achievements, translation from English, Geneks Kocani
[4] Kozhuharov S., (2006), „Managerial Economics", European University, Skopje
[5] Miceski T. (2009), „Human Resources Management", Goce Delchev-Stip University, Faculty of Economics, UGD-Stip
[6] Jones G., George J., Hill Ch. (200), „Modern Management", second edition, translation from English
[7] Shuklev B., (2000), „Fundamentals of Management", University St. Cyril and Methodius-Skopje
[8] Petkovski S. and Ortakov C, (2010), „Dealing with stress and conflicts at the workplace", Skopje

UTICAJ SOCIO-KULTUROLOŠKOG OKRUŽENJA NA OBAVLJANJE MARKETING AKTIVNOSTI U ISLAMSKIM ZEMLJAMA

INFLUENCE OF SOCIO-CULTURAL ENVIRONMENT ON MARKETING ACTIVITIES IN ISLAMIC COUNTRIES

Milica Đokić[1]
Ivana Janjić[2]

DOI: https://doi.org/10.31410/EMAN.2019.263

Sadržaj: *Međunarodno poslovanje predstavlja ne samo ekonomski već i socio-kulturološki fenomen. Ono se značajno razlikuje od delovanja u nacionalnim okvirima zbog prisutnosti brojnih specifičnosti vezanih za nacionalno uređenje, privrednu politiku, zakonodavstvo i kulturna obeležja svake zemlje. Kompanije sve češće umesto potpune standardizacije svojih proizvoda i usluga moraju prilagođavati svoj marketing miks zahtevima lokalnog okruženja. Internacionalizacija poslovanja na globalnom tržištu i nove mogućnosti razvoja vodile su ka nužnosti upoznavanja kulturnih vrednosti, načina ponašanja i poslovne prakse u različitim društvima i kulturama. Tradicija, verovanja, religija, jezik i pojedini običaji na određenom segmentu tržišta u značajnoj meri oblikuju potrebe i navike ljudi, pa samim tim i njihovo ponašanje u procesu kupovine, te su često od presudnog uticaja na uspeh marketing programa kompanija. Pripadnici različitih kultura mogu imati potpuno drugačije stavove o istoj stvari, drugačije reakcije u identičnim okolnostima i na drugačiji način zadovoljavati iste potrebe. Te razlike mogu biti rezultat pripadnosti drugoj religiji, koja determiniše postojeće običaje, rituale i stavove, pa čak i direktno utiče na prihvaćenost nekih proizvoda u društvu. Zabrane, predrasude ili obaveze vernika značajne su u formiranju sistema potrošnje i njihovog ponašanja u ulozi potrošača s jedne strane, ali i na način poslovanja i posebno obavljanja marketing aktivnosti od strane kompanija. Od spremnosti menadžmenta da uvaži specifičnosti pojedinih kultura zavisiće i mogućnost uklapanja u inostrani ambijent, odnosno uspeh u komunikaciji sa potrošačima i efikasnost sprovođenja planiranih akcija.*

Svrha ovog rada jeste da identifikuje specifičnosti islamske kulture i prikaže uticaj religije na potrebe i ponašanje muslimana kao potrošača. Pored toga, biće analizirane poteškoće sa kojima se kompanije suočavaju pri poslovanju u islamskim zemljama i načini na koje vrše prilagođavanje svojih marketing aktivnosti u skladu sa zahtevima okruženja.

Ključne reči: *kulturološke razlike, islam, međunarodni marketing*

Abstract: *International business is not only an economic but also a social-cultural phenomenon. It is significantly different than doing business within national borders due to numerous specificities related to the state order, economic policy, legislation and cultural features of each country. Instead of fully standardizing their products and services, companies are making huge efforts to adjust their marketing mix to the conditions of the local markets. The internalization of business to the global scale and new possibilities of development have increased the necessity of meeting cultural values, behavior patterns and business practices of different societies and cultures. Tradition, beliefs, religion, language and certain customs at the particular market segment shape the needs and habits of people, influencing*

[1] Inovacioni centar Univerziteta u Nišu, Univerzitetski trg 2, 18000 Niš, Srbija; doktorand Ekonomskog fakulteta Univerziteta u Nišu

[2] Inovacioni centar Univerziteta u Nišu, Univerzitetski trg 2, 18000 Niš, Srbija; doktorand Ekonomskog fakulteta Univerziteta u Nišu

their purchasing behavior as well, and are often of crucial importance to the success of companies' marketing programs. Members of different cultures may have completely dissimilar attitudes about the same thing, various reactions under identical circumstances and may fulfill the same needs in diverse ways. These differences are often the result of belonging to another religion, which determines existing customs, rituals and attitudes, and even the acceptance of certain products in the society. Prohibitions, prejudices or religious obligations are important factors of the structure of consumption and believers' behavior as consumers, and can have a huge impact on the business performance and especially on companies' marketing activities. Adaptation to the foreign environment, success in the communication with consumers and effectiveness of implemented actions are highly dependent on managers' willingness to accept cultural diversity and to respect characteristics of certain area.

The purpose of this paper is to identify the specificities of Islamic culture and to show the influence of religion on the needs and behavior of Muslims as consumers. Furthermore, major difficulties that companies deal with and ways of adjusting their marketing activities to the requirements of Islamic countries will be analyzed as well.

Keywords: *cultural differences, Islam, international marketing*

1. UVOD

Uspeh jedne kompanije na međunarodnom tržištu u velikoj meri zavisi od njenih mogućnosti uklapanja u inostrani ambijent koji određuju socio-kultorološki faktori. Sociološke i kulturološke karakteristike jednog nacionalnog i geografskog prostora, sa jedne strane, oblikuju potrebe, želje i očekivanja pojedinaca, pa mogu biti presudan faktor prihvaćenosti i pozicioniranja proizvoda/usluga na tržištu, dok sa druge, imaju centralnu ulogu u identifikovanju i realizaciji marketing aktivnosti. Stvaranje svojevrsne kulturološke empatije, kroz istraživanje i razumevanje kulturnih razlika, tradicije, stavova i ponašanja ciljnog tržišta i uključivanje u marketing strategiju, omogućava kompanijama da izbegnu greške i iskoriste prednosti različitih kulturnih okruženja [9].

Ne postoji jedinstvena definicija kulture, ali se može objasniti kao „set tradicionalnih verovanja i vrednosti koje se prenose i dele u jednom društvu“ [12], a obuhvata norme i obrasce ponašanja nacionalne grupe [10]. Dok je pojedini autori shvataju kao "kolektivno programiranje uma koje razlikuje jednu grupu ljudi od druge" [5], drugi naglašavaju njenu kompleksnost kroz brojne elemente, kao što su jezik, znanje, običaji, religija, umetnost, sistem vrednosti, nacionalna pripadnost [2], [11], [18]. Terpstra i Sarathy su definisali kulturološki okvir, sastavljen od osam kategorija, koje je neophodno analizirati prilikom ulaska na novo tržište, a to su: religija, vrednosti i stavovi, jezik, obrazovanje, uređenost (organizacija) društva, tehnologija i materijalna kultura, pravo i politika, i estetika [17]. Vodeći se njime, marketing menadžeri su u mogućnosti da na sveobuhvatan način procene kulturološku prirodu jednog tržišta. Usled ogromnog uticaja koji islamska kultura ima na ponašanje potrošača i njihova shvatanja o tome šta je prihvatljivo a šta ne, istraživanja tržista i marketing segmentacija su sve više usmerene ka profilisanju potrošača islamske veroispovesti. Iako poslednjih godina islamski marketing igra sve važniju ulogu u razvoju marketinških znanja i njegova praktična primena u poslovanju dobija sve veći značaj, ova oblast i dalje, čini se, ostaje nedovoljno proučena.

2. ULOGA RELIGIJE I NJEN UTICAJ NA MARKETING AKTIVNOSTI U ISLAMSKIM ZEMLJAMA

Religija kao jedan od najvažnijih elemenata kulture, ima ogroman uticaj na život i ponašanje članova zajednice u ulozi potrošača, što se odražava na aktivnosti u međunarodnom marketingu. Religija je sistem verovanja i praksi koji diktira individualnu reakciju, obezbeđujući kod koji kontroliše i opravdava versko društveno ponašanje [7]. Religiozne institucije itekako mogu uticati na ekonomska zbivanja, bilo posredno kroz formiranje društvene svesti nametanjem sistema vrednosti, običaja i kodeksa ponašanja, ili čak direktno zabranom konzumiranja pojedinih proizvoda, primene određenih praksi i slično. Najzastupljenije religije jesu hrišćanstvo, islam, hinduizam i budizam. Islam je druga religija na svetu po broju sledbenika, sa 1,8 milijardi ili oko 24% svetske populacije [13]. U nekim islamskim zemljama, religija je često osnova vlade, pravnog i socijalnog sistema, kulturnog okruženja, pa samim tim i dominantan faktor u poslovanju, političkom životu i sistemu obrazovanja [6]. Muslimani veruju da je Božija volja izvor svega, a islamski zakoni se donose na osnovu Kurana i uređuju sve sfere života.

Da bi ostvarile uspeh na islamskom tržištu, kompanije se moraju upoznati sa etičkim principima, religioznim zahtevima, običajima, očekivanjima i zabranama. U suprotnom, suočavaju se sa poteškoćama prilikom pridobijanja potrošača koji strogo poštuju verske propise. Prema islamu, sve aktivnosti i postupci se mogu klasifikovati u tri grupe: *halal* odnosno dozvoljene, *mushtabeh* tj. sumnjive i *haram* ili nedozvoljene [1]. Dozvoljene aktivnosti obuhvataju dužnosti ili obavezujuće ponašanje (*wajib*), neobavezujuće, ali poželjne postupke (*mandoob*) i one koje se smatraju nepoželjnim (*makrooh*). Sumnjivi postupci su oni od kojih bi se trebalo maksimalno uzdržati, dok su nedozvoljeni strogo zabranjeni i smatraju se grehom.

Direktan uticaj na marketing aktivnosti mogu imati zahtevi koje propoveda Kuran, a koji se odnose na zabranu alkohola, varanja i stvaranja idola. Konzumacija alkohola je u mnogim muslumanskim zemljama strogo zabranjena, dok se u nekim alkoholna pića mogu kupiti samo na određenim mestima i pod propisanim uslovima. Reklame stranih kompanija su dozvoljene tek nakon što budu cenzurisane od strane vlasti. U islamskom poslovanju veliki akcenat je na poštenju, ne toleriše se manipulacija ili druga vrsta zloupotrebe, kakve su svojstvene današnjem marketinškom svetu. Sve prikazane karakteristike i kvalitet proizvoda moraju biti stvarno prisutni, ne smeju se preuveličavati jer će se u suprotnom smatrati prevarom. Osim toga, predmeti koji bi mogli izazvati divljenje se ne bi trebalo naći u reklami jer Kuran zabranjuje stvaranje idola koji nije Bog.

Jedan od segmenata koji se takođe dosta razlikuje kod pripadnika muslimanske zajednice u odnosu na zapadni svet jeste ishrana. Ne samo da je konzumiranje svinjskog mesa i proizvoda od svinjetine zabranjeno, već i sam način pripreme hrane mora biti u skladu sa šerijatskim zakonom, koji između ostalog, nalaže i kako životinja treba biti ubijena da bi se meso moglo koristiti u ishrani. Svaki prehrambeni proizvod, da bi se plasirao na muslimansko tržište, treba ispunjavati HALAL standard, koji se smatra standardom dozvoljenog i prihvatljivog načina ishrane, u skladu sa šerijatom i islamskom tradicijom. Zapravo, čitav proces proizvodnje, prodaje i potrošnje proizvoda mora biti u potpunosti dozvoljen (halal) i „čist“, bez ikakvih štetnih posledica [14]. Iako ovakvi zahtevi i zabrane direktno utiču na proizvođače, primoravajući ih da izvrše adaptaciju svojih proizvoda, ne moraju nužno biti otežavajuća okolnost. Brojne svetske kompanije su specifičnosti muslimanske kulture videle kao mogućnost za diferenciranje i uspeh na globalnom tržištu, posebno iz razloga što je HALAL tržište prehrambenih proizvoda, kao i čitavo muslimansko stanovništvo, u stalnom porastu. Nestle, McDonald's i KFC samo su neki od primera kompanija koje su svoje proizvode i čitav sistem poslovanja uspešno prilagodile zahtevima šerijatskog zakona i ostvarile uspeh na islamskom tržištu.

Pri planiranju marketing aktivnosti, marketari bi, između ostalog, morali biti obazrivi i kako ne bi ometali muslimanske vernike u obavljanju dužnosti koje njihova Sveta knjiga nameće. Kao posebno značajne se ističu molitve koje se obavljaju pet puta dnevno, post tokom meseca Ramazana i poštovanje i briga prema starijima. Takođe, hvaljenje Boga, isticanje zahvalnosti za hranu, vodu, zdravlje i mir u duši je nešto po čemu je muslimanski svet prepoznatljiv. Ne samo da je dozvoljeno, već se i savetuje kreatorima marketing programa, da u svoje reklamne poruke ubace izraze poput: „U slavu Boga" ili „U ime Alaha, najmilosrdnijeg" i slično. Međutim, teba imati na umu i to da je islam široko rasprostranjen, pa se ne može smatrati potpuno jednoličnim u svim delovima sveta. Način na koji se islamska vera poštuje i primenjuje u svakodnevnom životu, može značajno varirati [15], pa postoje određene razlike u ponašanju muslimanskih potrošača, pre svega u zavisnosti od zemlje u kojoj žive i položaja u društvu.

3. ESTETSKE VREDNOSTI I POLOŽAJ ŽENA U ISLAMSKIM ZEMLJAMA KAO FAKTORI USPEHA U MEĐUNARODNOM MARKETINGU

Prilikom koncipiranja marketing programa, izbor simbola, boja i ilustracija kod pakovanja i promotivnih aktivnosti mora biti u skladu sa estetskim sistemom vrednosti kulture potrošača. Estetske vrednosti i norme predstavljaju jedno od osnovnih obeležja svake kulture. Pod njima se podrazumeva osećaj prema lepom i preovlađujući ukus u domenu umetnosti, muzike, slikarstva, filma, dizajna i drugih vizuelnih obeležja i simbola [8]. Boje, brojevi, znaci i simboli moraju biti pažljivo upotrebljeni jer vrlo često u različitim kulturama mogu imati različita značenja ili asocirati na nešto potpuno drugačije. Kakve posledice može imati upotreba neadekvatnog simbola možda najbolje opisuje slučaj kompanije Nike, koja se sredinom 1997. godine našla u velikom problemu zbog svog novog emblema plamena na patikama koji je podsećao na reč Bog (Alah) ispisanu na arapskom jeziku. Iako je logo svojim izgledom samo asocirao na reč Bog, to je bilo sasvim dovoljno da izazove veliki gnev muslimanske zajednice. Njihovi predstavnici su konstatovali da je takav znak na patikama uvreda za Islamski svet jer se obuća prlja i blatnjavi, što, kako oni veruju, iskazuje nepoštovanje prema Bogu. Spor je rešen tek nakon što je kompanija Nike povukla patike sa ovim emblemom, javno se izvinila i donirala novac za izgradnju igrališta u islamskoj osnovnoj školi u Sjedinjenim Američkim Državama. Sličan primer je i kompanija American White Cross, koja se bavi proizvodnjom proizvoda za prvu pomoć i prodaje ih širom sveta, a koja na tržištima islamskih zemalja nije imala uspeha jer su njen korporativni logo, kao i ambalaža proizvoda na sebi imali oznaku belog krsta, koji je simbol hrišćanstva [3].

U zavisnosti od preovlađujućeg vrednosnog sistema u društvu, kao i religije, društveni i ekonomski položaj žena se može u velikoj meri razlikovati. U islamskim zemljama, posebno u pojedinim regionima kao što je Bliski Istok, prava i položaj žena mogu biti značajno ograničeni. Islam naglašava ulogu žene kao ćerke, sestre, supruge i majke, i od nje zahteva brigu o domaćinstvu, te se smatra da je pojavljivanje žene u reklamnim spotovima prihvatljivo jedino ukoliko je krajnje neophodno i ispravno, ali i da u tom slučaju žena mora biti pristojno odevena i ne sme biti predmet reklame [16]. U velikom broju islamskih zemalja na ženi može biti otkriveno samo lice, ili čak samo oči, šake i stopala, dok je nezamislivo da žena bude viđena u odeći bez rukava ili golih nogu. Iz tog razloga mnoge reklamne kampanje je neophodno prilagoditi. Međutim, kod promovisanja pojedinih proizvoda, kao što je ženska kozmetika, gde se uglavnom ističe telo, kosa i lepota žene, reklama može izgubiti na efektu koji se želi postići. Sa druge strane, takve okolnosti mogu predstavljati i šanse ukoliko ih kompanije prepoznaju na vreme i na pravi način odgovore na njih. Američka kompanija Polaroid, poznata po proizvodnji fotoaparata sa trenutnom izradom slika, je dobar primer toga. Naime, u vreme ulaska na tržišta islamskih ze-

malja, sredinom ’60 – ih godina prošlog veka, postojao je mali broj radnji sa dozvolom za izradu slika. Zbog strogih društvenih i religijskih shvatanja, lice i telo žene ne sme biti otkriveno pred muškarcem koji nije član porodice ili muž, čak ni na slici, pa je instant fotografija naišla na pravo oduševljenje među arapskim svetom jer su na ovaj način i ženske osobe mogle da se fotografišu, bez straha da će ih neki stranac u foto radnji videti ili napraviti kopiju slika [6].

4. MARKETING MIKS U ISLAMSKOM MARKETINGU

Prema islamskoj kulturi ostvarivanje profita je prihvatljiv motiv poslovanja, ali se načinu na koji se do njega dolazi posvećuje mnogo više pažnje. Iz tog razloga, muslimanska poslovna teorija navodi da marketing pristup u kome se kao osnovni cilj prepoznaje maksimiziranje profita nije dovoljan za nastup na islamskom tržištu i da se poštenje i pravičnost mora primenjivati u međusobnom odnosu sa potrošačima [14]. Kada je reč o marketing miksu, u literaturi o islamskom marketingu često se navodi da uobičajeni 4P (product - proizvod, price – prodajna cena, place – distribucija i mesto prodaje, promotion - promocija) ili 7P koncept (product - proizvod, price - prodajna cena, place – distribucija i mesto prodaje, promotion - promocija, people - ljudi, process – proces pružanja usluge, physical environment – fizičko okruženje) nije dovoljan za izgradnju lojalnog odnosa sa muslimanskim potrošačima. Wilson [19] predlaže uključivanje dodatnih 7P elemenata (pragmatizam, prikladnost, palijacija, uzajamna podrška, pedagogija, upornost, strpljenje), dok Hashim i Hamzah [4] navode da bi u islamskom marketingu 7P marketing miks trebalo da izgleda ovako:

- Pragmatizam i proizvod – pragmatizam se vezuje za proizvode/usluge od kojih se očekuje da pruže određene pogodnosti potrošačima i zadovolje njihove potrebe, što je u skladu sa islamskim učenjem da treba prodavati proizvode za kojima postoji potreba i koji su dobrog kvaliteta;
- Prikladnost i promocija – u promotivnim aktivnostima potrošačima treba pružiti potpune informacije o proizvodima/uslugama, i na iskren način prikazati prednosti i pogodnosti koje se ostvaruju njhihovim korišćenjem, bez nerealnih obećanja i dovođenja potrošača u zabludu, koje islam zabranjuje;
- Palijacija i cena – prilikom određivanja cene treba imati u vidu da ona predstavlja trošak za potrošače i težiti ka smanjivanju finansijskog tereta kroz popuste i redukciju troškova proizvodnje, u skladu sa islamskim shvatanjem da proizvode treba prodavati po tržišno prihvatljivoj ceni;
- Uzajamna podrška i ljudi – sa svim interesnim grupama, eksternim i internim stejkholderima, treba uspostaviti odgovarajuće odnose bez razmirica i prevara, pridržavajući se etičkih principa, kako nalaže islam;
- Pedagogija i fizičko okruženje – pružanje transparentnih instrukcija, metoda i praksi svim stejkholderima bi trebalo da stvori takav uslužni ambijent u kome bi potrošači svoj odnos sa kompanijom pamtili kao profitabilni, što je u skladu sa učenjem proroka Muhameda da je samo ime garancija kvaliteta i integriteta;
- Upornost i proces – kako i sam proces dostavljanja proizvoda i pružanja usluga u velikoj meri utiče na zadovoljstvo potrošača, neophodno je kontinuirano raditi na njegovom poboljšanju, a s obzirom da islam nalaže postizanje zajedničkog dogovora prilikom prodaje/kupovine, ukoliko ga se strane ne pridržavaju, ni proces dostave neće biti prihvatljiv;
- Strpljenje i mesto – prilikom distribucije proizvoda i usluga moraju se poštovati etički principi poslovanja, jer prema islamskom učenju prodavci ne smeju prikrivati ništa od svojih potrošača ili prodavati ono što ne postoji, a prioritet uvek treba dati prvim kupcima.

5. ZAKLJUČAK

Bez obzira na globalizaciju i sve veću povezanost zemalja, bogastvo i različitost kultura i dalje su dominantno obeležje sveta. Zato se u međunarodnom poslovanju na pijedestal izuzetne važnosti uzdiže socio-kulturološko okruženje potrošača, iz kog proističu stil života i okvir ponašanja. Pre upuštanja u poslovanje u internacionalnom okruženju, marketing menadžeri se moraju upoznati sa svim religioznim običajima, verovanjima i shvatanjima zastupljenim na ciljnom tržištu kako bi bili u mogućnosti da formulišu adekvatnu marketing strategiju, sigurni da će ona biti shvaćena na pravi način i samim tim izbegnu neželjene posledice. Zbog posebne uloge religije i snažnog uticaja na sve aspekte života vernika, islamske zemlje često predstavljaju veliki izazov za kompanije, čak i one najuspešnije. Verujući da je Božja volja izvor svega, sve sfere života, pa tako i poslovne aktivnosti, se uređuju u skladu sa Kuranom. Verski običaji, zabrane, obaveze, etički kodeks, drugačiji stil života, različita shvatanja i položaj žena u društvu su samo neki od segmenata koji se mogu značajno razlikovati u odnosu na Zapadni svet i imati dominantan uticaj na uspeh marketing programa. Stoga, za izgradnju trajnog i uspešnog odnosa sa potrošačima na muslimanskom tržitu neophodno je pre svega razumevanje značaja i uticaja religije, vrednosnog sistema i sociološkog okruženja, pa u skladu sa tim i uključivanje dodatnih elemenata u savremeni marketing miks.

LITERATURA

[1] Alserhan, A.B. (2011) *The Principles of Islamic Marketing*, Gower Publishing Ltd., England.

[2] Brassington, F., Pettitt, S. (2006) *Principles of Marketing*, 4th Edition, Prentice Hall, Harlow.

[3] Capela, John J. (2012) *Export/import Kit for Dummies*, 2nd Edition, New Jersey: John Wiley & Sons, Inc., Hoboken.

[4] Hashim, N., Hamzah, M. (2014) 7P's: A Literature Review of Islamic Marketing and Contemporary Marketing Mix, *Procedia - Social and Behavioral Sciences*, Vol.130, pp. 155 – 159.

[5] Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*, 2nd Edition, Sage Publications, Thousand Oaks, CA.

[6] Hollensen, S. (2007) *Global marketing: A Decision-Oriented Approach*, Prentice Hall.

[7] Idinopulos, A.T., Wilson, C.B. (1998) *What is Religion?: Origin, Definitions, and Explanations.* Volume 81 of Numen Book Series. Volume 81 of Studies in the history of religion. Leiden, Netherlands: BRILL, pp.1-179.

[8] Karim, R. (2015) The Cultural Impact on International Marketing Strategy, With a Special Emphasis of Bangladesh Perspective, *International Journal of Business and Technopreneurship*, Vol. 5, No 2, pp.183-204.

[9] Kotler, P., Wong, V., Saunders, J., Armstrong, G. (2005) *Principles of marketing*, Pearson education, 4th European edition, Edinburgh.

[10] Leung, K., Bond, M.H., Carrasquel, S.R., Hernández, M., Murakami, F., Bierbrauer, G., Singelis, T. (2002) Social axioms: the search for universal dimensions of general beliefs about how the world functions, *Journal of Cross-Cultural Psychology*, Vol.33, No.3, pp.286-302.

[11] Nakata, C. C., Huang, Y. (2002) *Culture theory in global marketing research: an assessment from the literature*, Winter Educator's conference of the American marketing Association.

[12] Onkvisit, S., Shaw, J. (2004) *International Marketing: Analysis and Strategy*, 4th Edition, New York: Routledge Publishers.
[13] Pew Research Center (2017) *"The Changing Global Religious Landscape",* Pew Research Center 2017.
[14] Saeed, M., Ahmed, Z.U., Mukhtar, S.M. (2001) International marketing ethics from an Islamic perspective: a value-maximization approach, *Journal of Business Ethics*, Vol. 32, No. 2, pp.127–142.
[15] Sandıkcı, O¨, Ger, G. (2010) Veiling in style: how does a stigmatized practice become fashionable? *Journal of Consumer Research*, Vol. 37 No. 1, pp. 15-36.
[16] Shafiq, A., Haque, A., Abdullah, K., Jan, M. T. (2017) Beliefs about Islamic advertising: an exploratory study in Malaysia, *Journal of Islamic Marketing*, Vol. 8, Issue: 3, pp.409-429.
[17] Terpstra, V., Sarathy, R. (2000*) International Marketing*, 8th Edition, Dryden Press.
[18] Usunier, J.C., Lee, J.A. (2005) *Marketing Across Culture*, 4th Edition, London: Prentice Hall Ltd.
[19] Wilson, J. (2012) Looking at Islamic marketing, branding and Muslim consumer behaviour beyond the 7P's: the call for supportive course content and more P's please, *Journal of Islamic Marketing*, Vol. 3, No. 3, pp. 212–216.

COLLISION „FAMILY-WORK" – MODERN PROJECTIONS

Todorka Kineva[1]

DOI: https://doi.org/10.31410/EMAN.2019.271

Abstract: *The collision between family life and work represents a perpetual conflict zone in Bulgarian society; it is also an object of scholarly interest for researchers in different fields, including sociology. The article emphasizes three thematic aspects of the problem: the impacts of work on personal and family life, the impacts of personal and family life on work, and the degree of satisfaction of Bulgarians with the time they devote to work and to their personal lives. In order to study the continuous two-way interaction between the family (as a personal, intimate environment) and work (work and professional life as a field of public interrelations and interactions), the author has conducted secondary analysis of data from the Fifth Wave of the European Social Survey (Bulgaria). General conclusions are drawn, and recommendations are made as to regulating conflictive interaction in the family-work relationship.*

Keywords: *collision, family, work.*

1. INTRODUCTION

The collision between family-life and work is a perpetual zone of conflict in Bulgarian society. The definition of this relationship between the two refers to a clash, a contradiction in the relations of those involved simultaneously in family and professional life. The disbalance in question, between the relations, is provoking the research interest of experts in various fields, including sociology.

This article presents an analysis of the family-work collision, conducted along three lines: *the influence of work on the personal and family life of people, the influence of personal and family life on work,* and the degree of *satisfaction of Bulgarians with the time they devote to work and personal life.*

The main aim of the analysis is to show how the two-way interaction between family-life and work leads to collision.

To achieve this aim, the following **tasks** have been achieved:

1. The social nature of the family-work collision is delineated.
2. Secondary analysis of data from the European Social Survey – Fifth Wave (Bulgaria) is conducted in the three areas under study [1].

The thesis argued here is that work and professional life exert a negative impact more often than a positive one, on the family.

[1] Department of Economic Sociology, University of National and World Economy, Bulgaria, 1700, Sofia, Student Town, Hristo Botev

2. THE FAMILY-WORK COLLISION AS A SOCIAL PROBLEM

The spheres of family life and work represent two mutually dependent poles. The connection and influences between the private and the public spheres are the main reasons why the family-work collision is studied not as a problem of the individual but as connected to, and dependent on, social processes, conditions and environment. The problem is a social one inasmuch as the social environment has the strongest influence on the family and the family environment [2], on family values, roles and mutual relations, on reproductive inclinations, and on the behavior of the partners in the family. In this social context, state policies are a powerful transformer of the individuals' personal life, generating the creation and functioning of families, the balanced combination of family duties and professional duties, and the raising of children. Many publications have analyzed the various social and economic factors provoking the family-work collision. The basic ones identified are the socio-demographic characteristics of the employed persons, the business climate (the enterprises and their social policies) and the regulative role of the state (through national policies regulating employment, family relations, and parental responsibility) [3].

Facing the "family-work" dilemma, are employed persons with family duties: employed parents and especially employed women [4] – women, because they are more strongly engaged with childbirth and raising children while simultaneously caring for their own professional development and career growth. Official statistics show that women comprise nearly half the economically employed persons in Bulgaria (respectively 46.7% in 2016 and 46.6% in 2017) [5]. The main findings of the time budget survey of the Bulgarian population, conducted in 2009-2010, indicate that the gender-based distribution of the aggregate time is not in favor of women. Women devote nearly twice as much hours as men for household chores (respectively 4.40 hours as against 2.49) [6]. They have less personal leisure time for relaxation, recreation, training and improving their qualification than men. [7]

Today, societies are facing the challenges of the fourth industrial revolution, "the wide range of technological innovations in the physical, digital and biological spheres and growing inequality and polarization in society". [8] These processes inevitably accelerate and aggravate the family-work collision. In this social context, in 2018 the European Parliament initiated inter-institutional negotiations for establishing legal norms through which a better balance between personal and professional life may be achieved in the EU member states. [9]

3. INTERACTION BETWEEN FAMILY AND WORK

Two opposite trends emerge in the study of family-work interaction. The first of these shows people achieving successful personal and professional realization and satisfaction in combining family and professional life. The second refers to the exact opposite: a state of collision, dissatisfaction with personal realization, a disbalance between family and work. This disbalance, in the words of Siyka Kovacheva, "turns into a social problem in contemporary European societies, in view of the increased requirements both at the workplace, with respect to economic efficiency, and in the family, with respect to children and leisure time" [10].

3.1. Work → Family

The first thematic aspect includes the influence of work on personal and family life. In the European Social Survey – Fifth Wave (Bulgaria), this type of influence can be revealed through analysis of the generalized responses to the following three questions: 1. How often do you worry about work problems when not working? 2. How often do you feel too tired after work to enjoy the things you like to do at home? 3. How often do you feel the job prevents you from giving time to your partner or family?

The answers to the first question, "How often do you worry about work problems when not working?" (see Figure 1), show that around one third of Bulgarians (34%) never, or nearly never, worry outside of working hours about things and problems related to work. They draw a clear dividing line between professional and personal life. They do not allow negative experiences and professional stress to go beyond the workplace. As "employed" persons, they restrict and control the possible negative influences of paid professional work. Unlike these people, however, approximately 40% of the surveyed persons fall in the category "worrying sometimes"; and every fifth respondent worries "often"; while 6% say they "always" worry about work problems during and after work.

By this indicator, no significant differences are observed between men and women, but there are some differences when taking age into account. The data show that as age increases, the share of women troubled about work grows. We find that employed women above the age of 45 much more often take their professional problems with them into their personal life, than those under that age. The behavior of older women can be explained by their greater feeling of duty and responsibility with respect to work and to their colleagues and employers, as well as by their desire to preserve their jobs and achieve a good professional image.

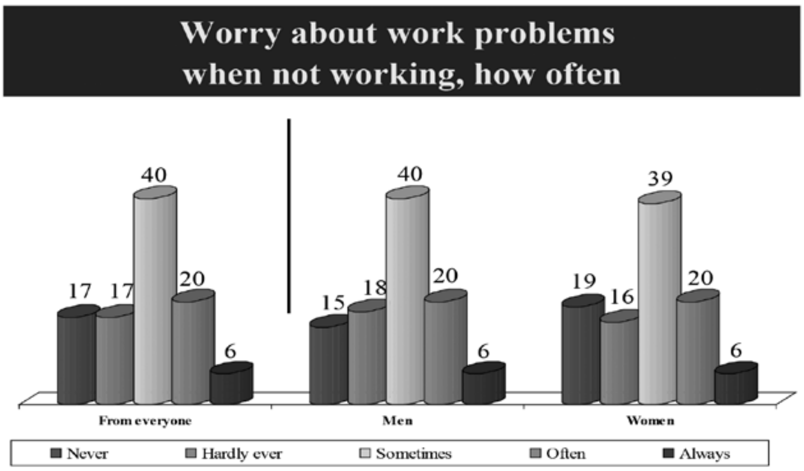


Figure 1. Anxiety at/about work*
* Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

The answer to the second question, "How often do you feel too tired after work to enjoy the things you like to do at home?" (Figure 2), indirectly shows the degree of workload, stress and exhaustion after the working day. Nearly half of the Bulgarians (48%) declare that this happens to them sometimes. We find that 35% of Bulgarians very often feel too tired after work to enjoy their leisure and do the things they want to do in the family and outside of home. Very probably, in their case excessive fatigue leads to neglect of domestic, marital and parental functions, or all

of these together. This problem applies to women to a much greater degree than to men. Nearly 31% of women declare that this happens to them often, and for 8%, it is a constant situation; while among men, the respective shares are 24% and 6%.

Figure 2. Tired after work*
* Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

The percentages of answers to the third question, "How often do you feel the job prevents you from giving time to your partner or family?" (Figure 3) indicate collision between family life and work, and specifically, how the role of "employed" directly restricts, eats away at the time spent fulfilling family roles. Results show that this indicator is correlated with the respondents' gender. The data indicate significant difference in the answers of men and women, the more frequent occurrence of the problem being among women. One out of five women asserts that the job often prevents her from giving as much time as she would like to her partner and family, while for 2% this situation occurs always. The respective shares of men giving these answers are 12% and 2%. The survey data show this problem to be much more distinctly and strongly expressed among women in active age, specifically, among women at the age of 30-50.

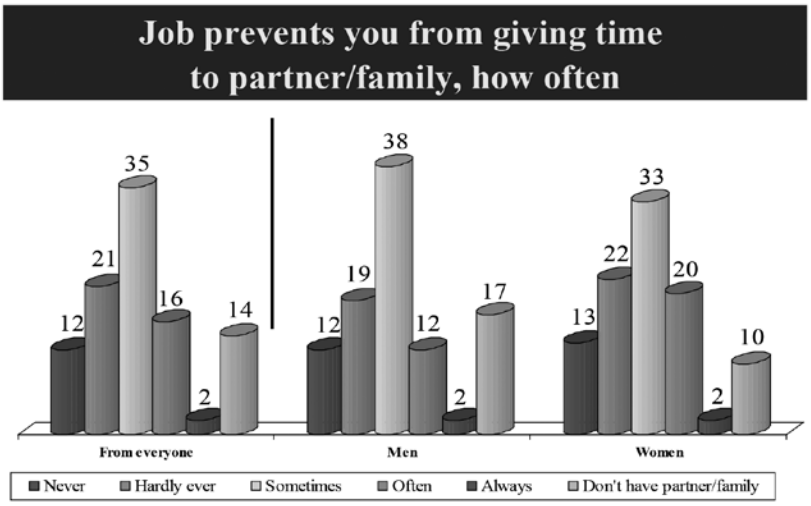


Figure 3. Work as an obstacle to giving time to the partner and family*
* Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

3.2. Family → Work

The second thematic aspect comprises the reverse influence – the impact of personal and family life on work. The European Social Survey – Fifth Wave (Bulgaria) contains likewise three questions relevant to this direction of influence: 1. How often do you feel that your partner or family are fed up with the pressure of your job? 2. How often do you feel family responsibilities prevent you from giving the time you should to your job? 3. How often do you find it difficult to concentrate on work because of family responsibilities? (Figures 4, 5 and 6).

For the question, "How often do you feel that your partner or family are fed up with the pressure of your job?" (Fig. 4), 61% of respondents declared that such a situation never or almost never occurs for them. They have the support, understanding and tolerance of their family. Nearly one third indicate that they sometimes feel their partner or family is fed up with the pressure of their job and their being often tired. Only 7% share that they "often or always" feel such a negative attitude in their partner or family.

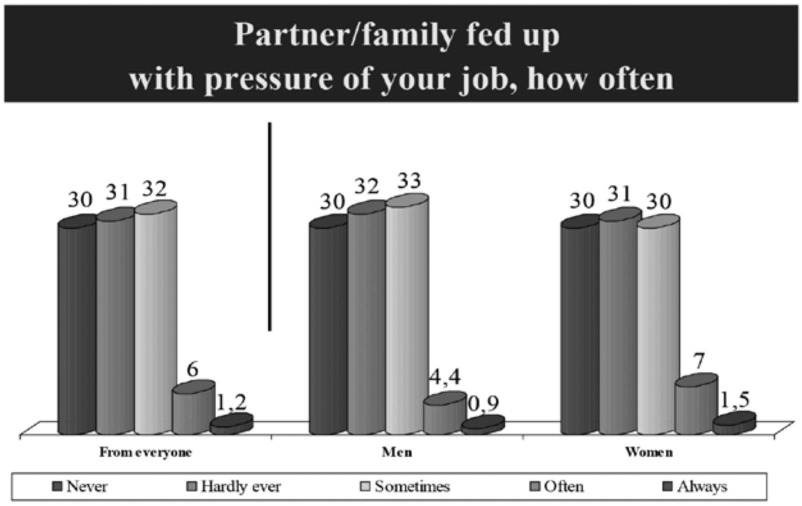


Figure 4. Partner's/family's dislike for pressure of job*
*Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

In answer to the question, "How often do you feel family responsibilities prevent you from giving the time you should to your job?" (Fig. 5), about 85% of the surveyed men and women indicate that their family responsibilities never, or hardly ever, prevent them from giving the necessary time to their work. This suggests that Bulgarians are able to manage their family duties and responsibilities in a way that does not get in the way of their professional duties. When comparing these answers with the answers to the reverse question, "How often do you feel the job prevents you from giving time to your partner or family?", we find an inconsistency. More than half the surveyed persons share that their job had a negative impact on the time they spend with their partners and family ("sometimes" for 35%, "often" for 16%, and "always" for 2%). This contrast requires additional study and analysis.

The answers to the question, "How often do you find it difficult to concentrate on work because of family responsibilities?" (Fig. 6) show that nearly 14% of the surveyed persons sometimes, often or always find it difficult to concentrate in this respect. Thus, by the time of the survey, this problem did not seem urgent for most Bulgarians. When examining the age structure, we see that difficulties with concentration due to family responsibilities is indicated more often by

women in the age range 30-40 than among younger and older ones. This can be explained by the fact that in our country, the women in the age range 30-40 are those who give birth and raise little children; they have more responsibilities related to children, which directly affects their concentration on professional duties.

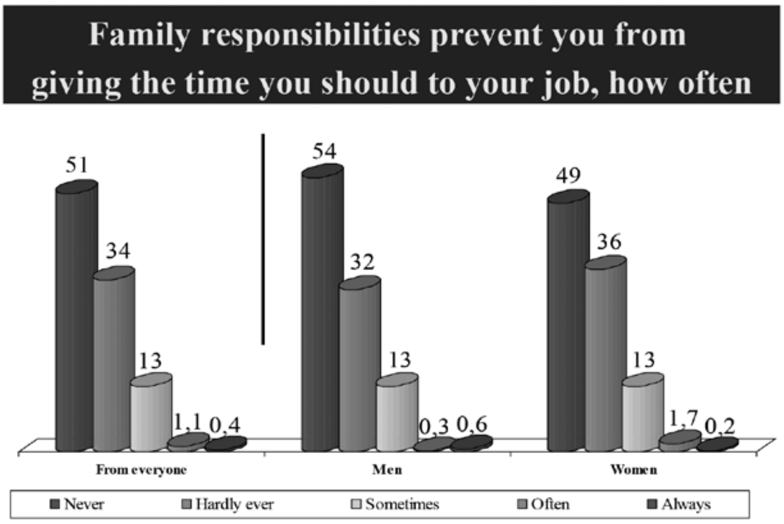


Figure 5. Family responsibilities as an obstacle to the job*
* Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

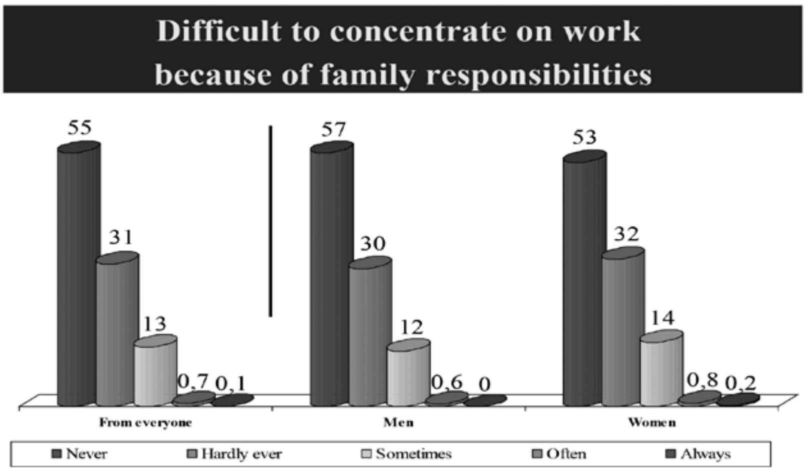


Figure 6. Influence of family responsibilities and concentration on work*
* Percentages based on responses
Source: European Social Survey – Fifth Wave (Bulgaria)

3.3. Satisfaction with the ratio of time for work and for personal life

The third thematic aspect concerns the degree of satisfaction of Bulgarians with the ratio of time they devote to paid work and the time spent in other activities in their lives. The results of the European Social Survey show there are some differences between the two sexes with regard to degrees of satisfaction in this respect.

It is important to note that one fifth of Bulgarians (21%) are "equally satisfied and unsatisfied" with the ratio of time they spend in work and in other activities, including training, recreation, etc. A low degree of satisfaction is indicated by 17% of the surveyed persons (13% men and 21% women). The rest (62%) declare they are satisfied to various degrees. Women more often than men indicate a low degree of satisfaction with their time distribution and ratio. The explanation to this may should be sought in the numerous roles modern women fulfill, in their workload in terms of professional and domestic work. The lowest degree of satisfaction is declared by approximately half the young women aged up to 24. It may be presumed their strong dissatisfaction stems from the discrepancy between their expectations in professional and family aspects and their actual capacity to realize those expectations.

4. CONCLUSIONS AND RECOMMENDATIONS FOR REGULATING CONFLICTIVE INTERACTION IN THE FAMILY-WORK RELATIONSHIP

The secondary analysis of European Social Survey data shows the existence of collision between family-life and work. Our analysis has confirmed the thesis we argue that work and professional life have a negative impact on family life more often than the latter does on the former. Analysis of the findings has empirically shown the existence of a number of negative effects of the family-work collision on people, including anxiety, fatigue, antipathy, lack of concentration, dissatisfaction with the distribution of work time and leisure, etc. These negative consequences should be regulated and overcome, which requires formulating appropriate recommendations for the regulation of family and professional duties in ways that may help balance relations between all social actors. The recommendations in question can be set at the macro, meso and micro level.

Macro-level recommendations refer to the need to create an adequate normative basis (for which the European Parliament launched an inter-institutional discussion in 2018) for regulating and balancing the interaction between various social actors involved in the family-work collision.

At meso-level it is possible to apply an effective social policy in companies by which it may be possible: 1. to provide flexible working hours (the "flexicurity" concept) [11]; 2. to sponsor children's rooms, areas, gardens in companies in order to assist young parents; 3. to perfect the managerial approach to employees, to apply the new approach – management through values.

The recommendations at the level of the **individual** refer to building in people a personal desire for self-improvement and enhancement of work abilities, motivation for the creation of a family and raising children, educating people in respect, understanding and empathy towards partners, between colleagues at work, etc.

REFERENCES

[1] The study is a national sample survey conducted in 2011 (127 interviews taken in December 2010, and 2,307 in January-March 2011). Conducted using personal standardized interview questionnaires, it encompassed 2,434 persons aged above 15 years. The secondary analysis conducted here is based on a reduced sample including only economically active persons, for whom it is hypothetically assumed they perform various professional and family roles. The size of the sample is 1,656 persons (770 men and 886 women) aged

18-64. This reduction of the sample was made in view of the age of legal labor activity in Bulgaria and the right to retirement, in accordance with Art. 68, par. 1 and 2 of the Social Insurance Code.

[2] National Strategy for the Demographic Development of the Population of the Republic of Bulgaria (2012-2030) updated, p. 93.

[3] Kineva, T. The Contemporary Bulgarian Woman and the Family-Work Collision. In: Scientific Works of UNWE – Vol. 2-3/2015, part 2. UNWE Publishers, Sofia, 2015, p. 213-248; Sotirova, M., Ivanova, V. Problems and Policies for Balancing Family-life and Work. A Study Using the Costs-Benefit Method on the Economic Effects of Measures for Combining Professional and Family Duties. CNSB, Friedrich Ebert Foundation, Bulgarian Office, 2012.

[4] We do not claim the problem does not apply to Bulgarian men, but we believe it appears in more moderate forms, and is basically less strongly expressed, among them.

[5] NSI. Employment and Unemployment – Annual Data 2017. S., 2018, p. 24

[6] NSI. A Study of the Time Budget of the Population in the Period 2009-2010. Accessible at: http://www.nsi.bg/sites/default/files/files/pressreleases/TUS2009_2010.pdf (02.03.2019)

[7] Stoyanov, K. Kirova, A. Gender Inequalities in Paid and Unpaid Labour in Bulgaria. Academic Publishers Prof. Marin Drinov, S., 2008, p. 36-38

[8] Stoyanova, M. Man in economy - sociological view study. // SocioBrains – International Scientific Online Journal, Issue 31, March, 2017, p. 57-63.

[9] European Parliament. 2017/0085(COD), Work-life balance for parents and carers. Accessible at: https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&reference=2017/0085%28COD%29 (02.03.2019)

[10] Kovacheva, S. Work-Family Balance. Young Working Parents between Possibilities and Limitations. Iztok-Zapad Publishers, S., 2010, p. 363.

[11] The concept of "flexicurity" has been supported by various researchers in the field of labor relations, who emphasize providing flexible employment in order to ensure social security. See Sotirova, M. Flexible Systems of Employment and Deregulation of the Labor Market. Contemporary Trends and Expected Challenges. University Publishers Paissiy Hilendarski, P., 2007, p. 71-75

CREATING VIETNAM ACCOUNTING STANDARDS FOR SMALL AND MEDIUM ENTERPRISES BASED ON INTERNATIONAL FINANCIAL REPORTING STANDARDS FOR SMALL AND MEDIUM-SIZED ENTITIES

Nguyen Duc Phong[1]
Anita Tangl[2]

DOI: https://doi.org/10.31410/EMAN.2019.279

Abstract: *International economic integration has been taking place more and more deeply in many aspects, including the integration of accounting. The integration of accounting has created much useful information for investors as well as managers, which has been widely recognized in many countries in the world. Nowadays, Vietnam is in the process of international economic integration and is reforming their economic structure; therefore, the government's direction is to apply International Financial Reporting Standards for Small and Medium-Sized Entities (IFRS for SMEs) issued by the International Accounting Standards Board (IASB). However, many factors affect to implement IFRS for SMEs in Vietnam successfully; hence, the Vietnamese government wants to have a set of Vietnam Accounting Standards for Small and Medium Enterprises (VAS for SMEs) before IFRS for SMEs standards is applied wholly in the near future.*

This article focuses on discussing some issues related to VAS for SMEs created based on IFRS for SMEs then proposing some recommendations to step by step implement IFRS for SMEs in Vietnam. The article uses the Archival Research method to conduct research.

Keywords: *IFRS for SMEs, VAS for SMEs, Vietnam.*

---

1. INTRODUCTION

International economic integration is taking place more and more deeply in many aspects, including accounting integration. Integration of accounting in the direction of international accounting convergence will create a lot of useful and valuable information which is widely recognized globally. Creating useful information is a crucial issue of enterprises, including small and medium enterprises (SMEs).

In Vietnam, SMEs account for more than 95% of the total number of enterprises operating in the economy; therefore, studies of international accounting integration and convergence processes for SMEs is an urgent requirement for both academic and application side. Based on this situation and the actual accounting activity of SMEs in recent years, this article focuses on discussing some issues related to VAS for SMEs formed based on IFRS for SMEs, then proposing some recommendations to step by step implement IFRS for SMEs in Vietnam.

---

[1] School of Management and Business Administration Sciences, Szent Istvan University, Hungary
[2] Faculty of Economics and Social Sciences, Szent Istvan University, Hungary

2. METHODOLOGY OF THE RESEARCH

The article uses the Archival Research method to conduct research. Research data includes studies on IFRS in emerging and developed countries, studies and opinions of IFRS experts in Vietnam as well as other countries.

3. LITERATURE REVIEW

Since the International Financial Reporting Standards for small and medium-sized entities (IFRS for SMEs) were issued in 2009, there have been many researchers interested in these standards. Many studies show that IFRS for SMEs is expected to bring many benefits to businesses and accounting information users. IFRS for SMEs has helped to restore and build trust for those who use accounting information, to improve comparability and transparency of financial reports (Fazeena Fazneen Hussain et al., 2012), to reduce costs as well as auditing time, to make accounting information more transparent and to protect the rights of accounting information users (LJ Stainbank, 2010; Grosu Veronica & Bostan Ionel, 2010; Hana Bohusova, 2011). Moreover, the application of IFRS for SMEs also contributes to the development of accounting profession, improves the business environment, attracts investment capital and improves competitiveness (Adela Deaconu et al., 2012; Kaya, D., & Koch, M., 2015). Thanks to these benefits, after two years IFRS for SMEs was officially issued, nearly 80 countries implemented or had a road map to apply IFRS for SMEs (Pacter, 2011).

However, the application of IFRS for SMEs in many countries also faces many challenges. Some requirements of IFRS for SMEs are challenging to apply to developing countries, and the inadequate application guidelines are still complicated for enterprises (Fazeena Fazneen Hussain et al., 2012). Besides, there are still many incompatibilities in terms of standards and practical application in many countries, so implementing IFRS for SMEs in countries is not an easy matter (Călín Nicolae Albu et al., 2010). Therefore, many researchers warn that it is necessary to be careful in deciding to apply IFRS for SMEs in developing countries.

On the current forums, two contradictory views are emerging: One view is that the issuance of IFRS for SMEs is a right direction and countries should apply it (Ha Van Wyk & J). Rossouw, 2009; Asuman Atik, 2010; CE Anton & A.Trifan, 2011); A contradictory view is that IFRS for SMEs must still be shortened, further simplified to fit the characteristics of SMEs (Ha Van Wyk & J Rossouw, 2009; Stefan Bunea et al., 2012; Gregory Kenneth Laing, 2012).

In Vietnam, studies related to the implementing of IFRS for SMEs are also mentioned by some researchers. In general, studies have suggested that it is necessary to issue a new set of accounting standards for SMEs in which those standards should be tailored based on IFRS for SMEs (Chuc Anh Tu, 2010; Mai Ngoc Anh, 2011; Luu Duc Tuyen, 2012; Mai Ngoc Anh & Tran Thi Phuong Thao, 2013). However, these studies only make judgments that do not have strong arguments, so these statements are not highly convincing. Besides, there are some studies that also provide some orientations on the preparation and presentation of financial reports at various levels of business scale, but those orientations are not based on the foundation of accounting standards; it is mainly based on the relationship between benefits and costs (Tran Dinh Khoi Nguyen, 2011; Vo Van Nhi & Nguyen Huu Phu, 2012). The main reason why research in Vietnam is still limited is that the Vietnamese accounting system is still under the influence of many macro-level factors which are currently barriers to implementing IFRS for SMEs. These barriers are determined to be very difficult to overcome at this time.

4. THE ACCOUNTING STATUS OF SMES IN VIETNAM

Currently, in Vietnam, there is no official accounting standard to apply for SMEs. The Ministry of Finance has limited some contents in Vietnamese accounting standards applied for all sizes of businesses to use for SMEs and considers it as one of the essential legal foundations. In fact, enterprises in Vietnam are mostly small or super small businesses; therefore, managers and accountants do not pay attention to accounting standards. They only focus on making financial reports so that the authorities accept those reports. In some cases, these reports do not comply with accounting standards or Vietnamese accounting systems. It is not to mention that accounting training institutions in Vietnam only focus on Vietnamese accounting law as well as guiding accounting practices and they do not properly mention accounting standards. Therefore, many accounting learners do not learn and apply accounting standards in their work in the future. It is understandable when most SMEs only apply accounting laws to perform accounting work, but do not pay adequate attention to accounting standards. This fact shows that there are many challenges when Vietnam wants to implement IFRS for SMEs in the future. Some challenges such as changing traditional practices, not paying attention to accounting standards or non-compliance with accounting standards will need much time to adjust. Therefore, the study to build VAS for SMEs that is based on IFRS for SMEs is becoming a big challenge for state authorities as well as for researchers at this time.

In Vietnam, SMEs have many levels of scales and diverse business activities. Ownership structure is mainly Vietnamese. The main users of accounting information are credit agencies and tax authorities. The requirement for auditing for SMEs is usually not considered so it could be not appropriate to apply IFRS for SMEs. The main reason is that this application could cause many obstacles for managers and accountants and it is not needed for users of accounting information. This situation will continue for many years in Vietnam. However, Vietnam is deeply integrating with all areas including accounting. The implementing IFRS for SMEs is necessary and will be implemented in the near future. Adopting IFRS for SMEs will help Vietnam SMEs to strengthen their competitiveness and integration ability to develop their business. Due to this situation, Vietnam needs a reasonable solution for enterprises to practice accounting in accordance with VAS for SMEs, but in the long term, these enterprises will implement IFRS for SMEs entirely.

5. SOLUTIONS AND RECOMMENDATIONS

Solutions for Vietnamese accounting

In order to gradually implement IFRS for SMEs in Vietnam in the coming time, the authors offer some orientation solutions as follows:

- In the short term, Vietnam should choose some standards from IFRS for SMEs to lay the foundation for building VAS for SMEs. These selected standards need to be consistent with the actual conditions in Vietnam as well as the standards being implemented for SMEs today.
- It is necessary to issue an SME management mechanism in which accounting information is an essential basis to assess the quality and performance of enterprises. Thanks to the SME management mechanism, managers and accountants could voluntarily use accounting standards to create and present financial reports, which meet the requirements of accounting information users.
- In parallel with the issuance of a new VAS for SMEs as well as a new management mechanism for enterprises, Vietnam should transform the traditional accounting sys-

tem into an integrated accounting system which can be applied to all types of businesses. Besides, it is necessary to issue specific guidelines on the scope and extent of application for SMEs.

- The Ministry of Finance and the Ministry of Education and Training should work together to develop an integrated accounting training strategy in which training for accountants in SMEs plays a crucial role. To successfully implement this strategy, the universities, training institutions, and professional organizations should launch training courses to foster knowledge about VAS for SMEs as well as IFRS for SMEs for accountants and accounting students.
- Ministry of Finance should officially translate IFRS for SMEs. It is a useful document for the researching, learning, and issuance of VAS for SMEs in the near future. At the same time, Vietnam should regularly organize international conferences that relate to the experience of implementing IFRS for SMEs.

Recommendations for Vietnamese accounting

If Vietnamese government wants SMEs accounting step by step approach and apply IFRS entirely for SMEs in the future, they should have close cooperation between many state agencies, organizations and training institutions in issuing legal documents, VAS for SMEs as well as accounting education.

- The Ministry of Finance needs to summarize and assess the accounting situation in SMEs on a national scale in order to make an accounting training strategy, convert the traditional accounting system into integrated accounting system and issue a new VAS for SMEs.
- Professional organizations should provide advice, suggestions to the Ministry of Finance in issuing VAS for SMEs and planning for implementing IFRS for SMEs. Besides, these professional organizations should support SMEs in the practice of new accounting standards.
- Training institutions and universities should have IFRS courses in the training program. Besides, those institutions and universities are responsible for IFRS for SMEs research to assist the Ministry of Finance in issuing VAS for SMEs as well as implementing IFRS for SMEs.
- Government agencies and professional organizations should have activities to raise awareness of business managers and accountants about VAS for SMEs and IFRS for SMEs. The main reason is that they play a crucial role in applying standards to produce quality accounting information.

6. CONCLUSION

Developing VAS for SMEs then implementing all IFRS for SMEs is a practical requirement and consistent with the trend of integration and convergence of international accounting in the current period. Besides, the study to build an integrated accounting regime for all types of businesses in the Vietnamese economy is also an urgent requirement to meet the requirements of training and accounting practice in Vietnam in the short term as well as in the long term. In order to accomplish the above tasks, Vietnam needs to have close coordination between state agencies, professional organizations, training institutions and businesses in developing and implementing strategies.

REFERENCES

[1] Asuman Atik (2010): SME's Views on the Adoption and Application of IFRS for SMEs in Turkey, European Research Studies, Volume XIII, Issue (4):19-31.

[2] C.E. Anton & A. Trifan (2011), Opinions of the managers of the SMEs in Brasov concerning the need of accounting information offered by the companies that provide accounting services, Bulletin of the Transilvania University of Brasov, Vol.4 (53) No.2: 181-186.

[3] Cătălin Nicolae Albu and Nadia Albu, Szilveszter Fekete (2010): The context of the possible IFRS for SMEs implementation in Romania, An exploratory Study. Accounting And Management Information Systems, vol 9, No.1: 45-71

[4] Fazeena Fazneen Hussain, Priyashni Vandana Chand, Prena Rani (2012), The impact of IFRS for SMEs on the accounting profession: evidence from Fiji, Accounting & Taxation, Vol. 4 No. 2: 107-118.

[5] Gregory Kenneth Laing (2012), The Relevance of International Financial Reporting Standards for Small and Medium-sized entities: an Australian case study, International Journal of Accounting and Financial Reporting, ISSN2162-3082, 2012 Vol.2 No.1:75-82.

[6] Bohusova (2011), Adoption of IFRS for SMEs over the world, The Business Review Cambridge, Vol.18 No.2, December 2011: 208-214.

[7] Ha Van Wyk & J Rossouw (2009): IFRS for SMEs in South Africa: a giant leap for accounting, but too big for smaller entities in general, Meditari Accountancy Research Vol.17 No.1: 99-116.

[8] Kaya, D., & Koch, M. (2015). Countries' adoption of the International Financial Reporting Standard for Small and Medium-sized Entities (IFRS for SMEs)-early empirical evidence. Accounting and Business Research, 45(1), 93-120.

[9] LJ Stainbank (2010), An examination of the due process in South Africa which led to the adoption of the draft International Financial Reporting Standard for Small and Medium-sized Entities, Meditari Accountancy Research Vol. 18 No. 2: 57-71.

[10] Stefan Bunea, Marian Săcărin & Mihaela Minu (2012), Romanian professional accountants' perception on the differential financial reporting for small and medium-sized enterprises, Accounting and Management Information Systems, Vol.11, No.1: 27-43.

[11] Mai Ngọc Anh (2011), Chuẩn mực kế toán áp dụng cho các DNNVV theo thông lệ quốc tế và định hướng vận dụng ở Việt Nam, Tạp chí Kiểm toán, Số 2, Năm 2011.

[12] Mai Ngọc Anh & Trần Thị Phương Thảo (2013), Xây dựng chuẩn mực kế toán áp dụng cho các DNNVV - Kinh nghiệm quốc tế và định hướng phát triển cho Việt Nam, Tạp chí Kinh tế đối ngoại, Số 60 Năm 2013.

[13] Đường Nguyễn Hưng (2012), Phân tích các yếu tố ảnh hưởng đến sự phát triển của hệ thống kế toán Việt Nam, Tạp chí kế toán và kiểm toán, Số 10/2012 (109):21-22 & 25.

[14] Chúc Anh Tú (2010), Chuẩn mực kế toán áp dụng cho DNNVV, Tạp chí Kế toán, số tháng 10/2010.

[15] Lưu Đức Tuyên (2012): Áp dụng chuẩn mực kế toán cho các DNNVV, Tạp chí nghiên cứu Tài chính Kế toán, Số 11 (112), 2012: 41-44.

[16] Trần Đình Khôi Nguyên (2011), Cân đối chi phí và lợi ích của thông tin kế toán: Từ chuẩn mực kế toán quốc tế đến thực tiễn Việt Nam, Tạp chí kế toán & kiểm toán, số 12/2011 (99):10-12,34.

VEČITA NEDOUMICA: LIZING ILI KREDIT

AN ENTERNAL DILEMMA: LEASING OR LOAN

Vladimir T. Mladenović[1]
Milica Krulj-Mladenović[2]
Danilo Obradović[3]

DOI: https://doi.org/10.31410/EMAN.2019.285

Sadržaj: *Večita nedoumica, zašto auto kredit a ne lizing i obrnuto? Pitanje na koje ćemo pokušati da damo odgovor. Ne tako davno banke su imale u ponudi samo auto kredite, međutim, kako bi imali sveukupnu ponudu većina banaka je u svoj asortiman proizvoda ubacila i lizing. Isto tako je bilo nezamislivo kupiti polovno vozilo, poljoprivredne mašine korišćene ili opremu za rad preko lizinga, sada je to dostupno i sve je popularnije. Kako će izdržati auto kredit kao bankarski proizvod takav napad ostaje da se vidi u nekom budućem vremenu. Kroz rad će biti odrađen prikaz auto kredita fizičkim licima za kupovinu novih i polovnih automobila od pravnih i fizičkih lica. Odabir banaka koje su ušle u našu analizu je vođena primerom da banke pored ponude auto kredita imaju u svom vlasništvu i lizing ponudu u Srbiji.*

Ključne reči: *lizing, auto kredit, banka, fizička lica.*

Abstract: *An internal dilemma, why take auto loan, not leasing and vice versa? We will try to answer this question in the paper. Not so long ago, banks offered only auto loans, but in order to have the overall offer of services, most of the banks also leased their product range. It was also unthinkable to buy a used vehicle, used agricultural machines or other equipment with leasing, now it's available and is increasingly popular. How car loan will endure as a banking product such an attack remains to be seen in some future time. Through the paper a presentation of auto loans to individuals for the purchase of new and used cars from legal institutions and individuals will be done. The selection of banks that entered our analysis was guided by the example that banks in addition to offering auto loans have their own leasing offer in Serbia.*

Keywords: *leasing, auto loan, bank, individuals.*

---

1. UVOD

Kredit je imovinsko-pravni odnos između poverioca i dužnika, u kome poverilac svoj novac ili potrošna zamenljiva dobra daje dužniku na određeno vreme i uz određene uslove. Kredit se najčešće izražava, nastaje i gasi u novcu, pa su kredit i novac najuže povezani.[4] Jedan od najrasprostranjenijih oblika kredita zadnjih godina su oni krediti koji se odobravaju pojedincima, porodicama i manjim firmama. Ta oblast pozajmica obuhvata širok spektar od bukvalno stotina kupovina na osnovu pozajmica, od kupovine novog automobila, kreditiranja nove kuće i kupovine nameštaja i aparata na kredit, do finansiranja odmora i slanja dece na studije.[5]

---

1 Akademija poslovnih strukovnih studija Beograd, Svetozara Markovića 8-4, Kragujevac
2 Akademija poslovnih strukovnih studija Beograd, Svetozara Markovića 8-4, Kragujevac
3 Akademija poslovnih strukovnih studija Beograd, Svetog Save 22-17, Blace
4 Savremena administracija, *Pravna encikopedija*, Beograd, 1979., str 580
5 P. Rose, S. Hudgins., *Bankarski menadzment i finansijske usluge*, Data status, 2005., Beograd, str 603

Lizing je forma ustupanja prava korišćenja tehnologije, opreme i proizvoda, po osnovu zakupa.[6] Poslovi lizinga se koriste u finansijskim transakcijama koje su vezane za plasman proizvoda u zakup, a koji su velike pojedinačne vrednosti (oprema, trasnportna sredstva i sl.). Preduzeće ili fizičko lice kome je taj proizvod neophodan, a nije u finansijskoj mogućnosti da ga plati odmah u punom iznosu, koristi mogućnost da tu opremu ili saobraćajno sredstvo uzme u zakup, odnosno iznajmi na korišćenje.[7] Plaćenjem zakupnine u formi lizinga korisnik opreme, u stvari, indirektno otplaćuje deo vrednosti imovine koja je predmet zakupa.[8]

2. PRIKAZ AUTO KREDITI I LIZING PONUDE KOD INTESA BANKE I SOCIETE GENERALE BANKE

Ponuda auto kredita kod Societe Generale banke se sastoji iz dve celine, kredita indeksiranih u evrima i dinarskih auto kredita. Karakteristike auto kredita indeksiranih u evrima su sledeće:

- Tokom celog perioda otplate rata je ista u evrima,
- Fiksna kamatna stopa 5,88% za period otplate od 13 do 84 meseca,
- Rok otplate do 84 meseci,
- Iznos kredita od 500 do 15000 evra za automobile bez obaveznog KASKO osiguranja i zaloge,
- Za iznose kredita preko 15000 evra, obavezno je KASKO osiguranje i zaloga,
- Učešće: minimum 30% od zahtevanog iznosa kredita,
- Administrativni trošak: 2,95% od iznosa kredita,
- Osiguranje života korisnika kredita,
- Osiguranje usled gubitka posla.[9]

Kako što je navedeno, Societe Generale banka ima ponudu i dinarskog auto kredita za koji je postavila sledeće uslove:

- Bez valutne klauzule,
- Fiksna kamatna stopa 7,95% za period otplate od 13 do 84 meseci,
- Rok otplate do 84 meseci,
- Iznos kredita od 500 do 15000 evra za automobile bez obaveznog KASKO osiguranja i zaloge,
- Za iznose kredita preko 15000 evra, obavezno je KASKO osiguranje i zaloga,
- Bez učešća za dinarske kredite, ukoliko je iznos kredita niži od 15000 evra,
- Učešće 10% ukoliko je iznos kredita veći od 15000 evra,
- Administrativni trošak: 2,95% od iznosa kredita,
- Osiguranje života korisnika kredita,
- Osiguranje usled gubitka posla.[10]

Segelease je član Societe Generale banke. Ona je nastala prilikom potražnje za lizing ponudom. U svojoj ponudi imaju klasičan finansijski lizing i specijale akcije Soge lizinga, koje su promenljive zavisno od perioda i proizvoda.

---

6 Univerzitet u Beogradu, Ekonomski fakultet, *Ekonomski rečnik*, Beograd, 2006., str 376

7 M. Hadžić., *Bankartsvo*, Univerzitet Singidunum, 2008., Beograd, str 286

8 Đ. Đukić., V. Bjelica., Ž. Ristić., *Bankartsvo*, Ekonomski fakultet, 2006., Beograd, str 177

9 https://www.societegenerale.rs/stanovnistvo/auto-krediti/auto-kredit-indeksiran-u-evrima/, 21.02.2019.

10 https://www.societegenerale.rs/stanovnistvo/auto-krediti/dinarski-auto-krediti/, 21.2.2019.

Uslovi koji su dostupni u Segelease su sledeći:

- Jednaka rata ceo period otplate,
- Beskamatni lizing sa fiksnom NKS – 0% za finansiranje u iznosu do 5000 evra;
- Period finansiranja 36 meseci;
- Troškovi obrade 2% i učešćem 50%;
- Ukoliko je period otplate do 60 meseci, onda je NKS 3,29%, sa učešćem 25%;
- Kasko osiguranje je obavezno za obe varijante.[11]

Intesa Leasing je član Intesa Sanpaolo grupacije.

Intesa banka, kao i Societe Generale banka ima u ponudi auto kredite indeksirane u evrima i dinarima. Za kredite indeksirane u evrima su sledeći uslovi:

- Za kupovinu od pravnih lica 2000 do 30000 evra,
- Za kupovinu od fizičkih lica od 2000 do 13400 evra, (iznos kredita je podložan menjanju i može se uvećati za iznos premije polise KASKO osiguranja koje izdaje osiguravajuća kompanija, dok se kod kupovine od fizičkog lica isti iznos može uvećati za iznos poreza za prenos apsolutnih prava),
- Minimun 30% učešća od bruto vrednosti kredita,
- Period otplate je od 18 do 84 meseci, tj., može da se odabere jedan od ponuđenih: 18, 24, 36, 48, 60, 71 i 84,
- Na godišnjem nivou kamatna stopa se razlikuje za klijente i za ostale građane, pa za klijente iznosi 4,50% fiksna kamatna stopa, a za ostale građane je isto fiksna i iznosi 6,50%,
- Instrumenti obezbeđenja su jedna menica sa klauzulom bez protesta; za iznos kredita preko 10001 evro ide zaloga na vozilo do konačne otplate kredita; samo za kredite veće od 10001 evro potrebno je KASKO osiguranje za ceo otplatni period,
- Administrativni trošak je 1% za klijente, dok je za ostale građane 2%.

Intesa Leasing prateći svetske trendove nudi bogatu ponudu finansijskog lizinga za kupovinu novih i polovnih automobila za fizička lica. Ponuda se pored podele za nova i polovna vozila deli i na ponudu u evrima i na dinarsku ponudu. Maksimalni period finansijskog lizinga je 60 meseci. Učešće je minimum 20% od bruto vrednosti vozila. KASKO osiguranje je obavezno za ceo period trajanja ugovora o lizingu.

Uslovi finansiranja novog automobila u evrima su:

- Nominalna kamatna stopa (na godišnjem nivou) je 3,99%, varijabilna,
- Efektivna kamatna stopa (na godišnjem nivou) je 6,09%,
- Obavezno KASKO osiguranje,
- Maksimalni period otplate 60 meseci,
- Učešće je minimum 20% od bruto vrednosti vozila.

Dinarsko finansiranje novih automobila podleže sledećim uslovima:

- Nominalna kamatna stopa (na godišnjem nivou) je 6,99%, varijabilna,
- Efektivna kamatna stopa (na godišnjem nivou) je 9,33%,
- Obavezno KASKO osiguranje,
- Maksimalni period otplate 60 meseci,
- Učešće je minimum 20% od bruto vrednosti vozila.[12]

---

[11] https://sogelease.rs/akcije/renault/ , 21.03.2019.

[12] http://www.intesaleasingbeograd.com/leasing-vozila/putnicka-vozila/putnicka-vozila/novi-automobili.3167.html#ta12, 21.02.2019.

Pored finansiranja novih, Intesa Leasing nudi i finasiranje prilikom kupovine polovnih automobila. Ponuđeni uslovi za finansiranje u evrima i u dinarima se razliku samo po tome što starost vozila može da bude maksimalno 60 meseci, i da je obavezno učešće 30% bruto vrednosti vozila.

3. SWOT ANALIZA KREDITA ZA FIZIČKA LICA

U sledećem poglavlju će biti odrađena SWOT analiza kredita, sa svojim snagama, slabostima, šansama i problemima.

Snage	***Slabosti***
Široka baza korisnika; Nije obavezno KASKO osiguranje pod određenim gore navedenim uslovima; Vlasništvo fizičkog lica nad vozilom; Nije obavezno učešće prilikom uzimanja auto kredita;	Uslovljavanje sa prebacivanjem zarade da bi ostvarili povoljniju kamatnu stopu; Opterećenje u kreditnom birou;
Šanse	***Problemi***
Proširenje ponude kroz privlačnije uslove; Još uvek nedovoljna vera građana u lizing ponudu; Udruživanje zarade supružnika radi dobijanja kredita; Bez ikakve dodatne papirologije oko odlaska u inostranstvo vozilom koje je uzeto preko kredita;	Snažan rast Lizing ponuda; Kretanja na finansijskom tržištu; Zaloga na vozilo; Prilikom krađe vozila nastaje problem ukoliko niste uzeli KASKO osiguranje i morate nastaviti da plaćate rate kredita;

SWOT analiza lizinga za fizička lica

Snage	***Slabosti***
Olakšana procedura prilikom konkurisanja za lizing; Ne opterećenost kreditnim zaduženjem u kreditnom birou; Prilikom krađe automobila obavezno KASKO osiguranje koje je do tad bilo slabost prelazi u snagu;	Obavezno KASKO osiguranje; Slabost potražnje u odnosu na kredite; Obavezno učešće; Vlasništvo lizig kompanije nad vozilom; Opterećenje održavanjem vozila; Dodatni troškovi na kraju isteka lizing perioda, porez na prenos vozila;
Šanse	***Problemi***
Velika prolaznost ponuda kod pravnih lica; Smanjenje komplikacija oko ovlašćenja vozila za put u inostranstvo, takođe, i za pozajmljivanje vozila trećem licu;	Kretanja na finansijskom tržištu; Oduzimanje vozila zbog neizmirivanja obaveza; Kupovina polovnih vozila samo od ovlašćenih uvoznika;

4. ZAKLJUČAK

Velika borba za prevlast u vodećoj poziciji ponude uslova za kupovinu novih i polovnih vozila i dalje ne jenjava, sve su bliži parametri i sve je veća nedoumica kome dati prednost. Još uvek je kredit u blagoj prednosti u poređenju sa lizingom, mada je i ta prednost nekima prednost, nekima mana. U velikoj prednosti su gore pomenute Intesa banka, kao i Societe Generale banka koje u svojoj paleti proizvoda imaju objedinjenu ponudu, njihova prednost je ta što korisnici

mogu na jednom mestu dobiti obe ponude. Raznolikost ponude naših banaka se ogleda u jasno prezentovanim uslovima, zavisno od želje i pre svega mogućnostima kupaca. Gledano šire od ovog našeg prikaza ponude su slične, razlika koja se pojavljuje je u tome što određena banka ili lizing kuća ima zaključen ugovor sa određenim auto salonom i samim tim su im uslovi za kupovinu istog povoljniji od ostalih ponuda. Situacija sa kupovinom polovnih vozila je malo drugačija, ponuda je uslovljena sa godinama starosti automobila, sa procenom vrednosti, sa vozilom iz inostranstva, sa vlasnikom, tj. prodavcem vozila, sve to diktira uslove i kad se sve na kraju skupi tek tad daje jasnu sliku, koja je različita, može se reći od auta do auta. Po izveštaju Narodne banke Srbije, u 2018. god. 73,1% novoodobrenih kredita stanovništvu je bilo u domaćoj valuti, dok je u 2017. to učešće u proseku iznosilo 71%.[13] To samo potvrđuje činjenično stanje da je kod nas i dalje najzastupljenije dinarsko zaduživanje, što je primer i kod auto kredita i lizinga. Starost kupca, starost auta, visina primanja kupca, kreditna sposobnost kupca, sa žirantima ili ne, vrednost auta, zaloga ili ne, KASKO, kupovina od fizičkog ili pravnog lica, uvoz polovnog vozila ili kupovina kod nas, sve to kao i još pregršt sličnih pitanja nam ne dozvoljava da donesemo odgovor na pitanje postavljeno na početku rada i da ostavimo večitu nedoumicu auto kredit ili lizing i dalje aktuelnu. SWOT analiza nam je malo razjasnila gde smo trenutno ali nam i daje veliki prostor za razmišljanje u budućnosti oko ove dve ponude. I za kraj da napomenemo da je u samom radu sve vreme spominjan finansijski lizing, i ako postoji još jedna vrsta lizinga a to je operativni lizing. On sa pravom nije uziman u razmatranje i u poređenje samo znog toga što je on kratkoročni ugovor o zakupu samog vozila, i što se nakon završetka otplate vozilo vraća lizing kući.

LITERATURA

[1] Savremena administracija, *Pravna encikopedija*, Beograd, 1979.

[2] P. Rose, S. Hudgins., *Bankarski menadzment i finansijske usluge*, Data status, 2005., Beograd

[3] Univerzitet u Beogradu, Ekonomski fakultet, *Ekonomski rečnik*, Beograd, 2006.

[4] M. Hadžić., *Bankartsvo*, Univerzitet Singidunum, 2008., Beograd

[5] Đ. Đukić., V. Bjelica., Ž. Ristić., *Bankartsvo*, Ekonomski fakultet, 2006., Beograd

[6] www.societegenerale.rs

[7] www.intesaleasingbeograd.com

[8] www.sogelease.rs

[9] www.bancaintesa.rs

[10] www.nbs.rs

13 www.nbs.rs/internet/latinica/90/trendovi_kab/trend_izv_IV_2018.pdf, 21.03.2019.

EKOLOGIZACIJA PREDUZEĆA U FUNKCIJI ODRŽIVOG GLOBALNOG POSLOVANJA

ECOLOGISATION OF ENTERPRISES IN THE SUSTAINABLE GLOBAL BUSINESS FUNCTION

Jovana Radulović[1]
Tijana Milanović[2]
Zdravka Petković[3]

DOI: https://doi.org/10.31410/EMAN.2019.291

Sažetak: *Liberalizacijom trgovine i međukulturalnim interakcijama uspostavljen je novi vid metakomunikacije i u društvenom i u ekonomskom smislu – globalizacija. Uzastopne revolucije u društvu: industrijalizacija, kapitalizam, i tehnologija su u međuvremenu donele nove sisteme ekonomije ali ne i trajnu tehniku održivog razvoja. Sve ideje tehnološkog karaktera koje se odnose na podizanje efikasnosti resursa, deljenje ekonomskog rasta od proizvodnih resursa, obnova energije (sunce, vetar) su tehnocentrične i produktivistički nastrojene pa samim tim teško da mogu trajno rešiti ijedan globalni ekološki problem jer nisu eko- efikasne. Način funkcionisanja preduzeća jeste jedan vid ekosistema jer predstavlja sintezu različitih stavova, resursa i infrastruktura koje su zaslužne za inovacije, produktivnost i nova radna mesta. Globalni indeks preduzetništva (Global Enterpreunership Index) meri zdravlje preduzetničkih sistema tako da svaka zemlja deluje i u nacionalnom i međunarodnom kontekstu poslovanja. S obzirom da preduzetništvo valorizuje kvalitet naspram kvantiteta, ekologizacija predstavlja neophodnu meru sprovođenja reformi u vidu transformacije poslovanja u skladu sa globalnim ekološkim standardima.*

Ključne reči: *ekologizacija, preduzeće, globalizacija, poslovanje.*

Abstract: *By liberalizing trade and intercultural interactions, a new form of metacommunication has been established both in social and economic terms – globalization. The successive revolutions in society: industrialization, capitalism, and technology have in the meantime brought new systems of economics, but not a lasting technique for sustainable development. All technological ideas related to raising resource efficiency, sharing economic growth from production resources, energy recovery (sun, wind) are technocentric and productive, so it is difficult for them to permanently solve any global environmental problem as they are not eco-efficient. The way a company operates is a kind of ecosystem because it represents a synthesis of different attitudes, resources, and infrastructures that are responsible for innovation, productivity and new jobs. The Global Entrepreneurship Index measures the health of entrepreneurial systems so that each country operates in the national and international context of business. Since entrepreneurship valorizes quality against quantity, ecology is a necessary measure of reform implementation in the form of business transformation in line with global ecological standards.*

Keywords: *ecologisation, enterprise, globalisation, business.*

[1] Akademija poslovnih strukovnih studija u Beogradu, Kraljice Marije br. 73, Beograd, Republika Srbija
[2] Akademija poslovnih strukovnih studija u Beogradu, Kraljice Marije br. 73, Beograd, Repubika Srbija
[3] Akademija poslovnih strukovnih studija u Beogradu, Kraljice Marije br. 73, Beograd, Republika Srbija

1. UVOD

U drugoj dekadi XXI veka globalno poslovanje kao vid novog geoekonomskog poretka temelji svoje kritične faktore na dijametralnom pristupu: indikatori za poslovanje poput lokacija, investitora, klijenata, talenata, obrazovnih sistema i ekonomskog razvoja analiziraju se kao poslovno povoljne barijere. Savremeno poslovanje nije više samo internacionalno već nužno i globalno, jer obuhvata lokalnu, nacionalnu i nadnacionalnu ekonomiju. Poslovanje u globalnim uslovima diktira nove kompetencije za preduzetnike, poput jasno definisanog cilja u globalnom okruženju, intenzivnu saradnju sa konkurencijom, kompetitivnu prednost u distribuciji na svetskom nivou a kreiranje multinacionalne klime u organizaciji se nameće kao globalni imperativ za poslovanje. Drugim rečima, preduzetništvo je mehanizam modernog poslovanja kreiran da podrži ekonomske parametre kao što su razvoj, blagostanje i inovacije, s tim što u savremenm uslovima to se odnosi kako na razvijene tako i na nerazvijene zemlje. Moderan vid poslovne samoinicijative nije nova kategorija privrednog delovanja ali ono što je čini distinktivnom u odnosu na ostale vidove poslovanja jeste fenomen globalizacije koja je omogućila kako-tako „fer uslove" na svetskom tržištu za sve, tj.indikacija efektivnosti se ne odnosi više samo na onog „ko najviše ima" nego na „onog ko je najbolji" tj. koji je sposoban da više interaktivnih elemenata poveže u produktivan model poboljšanja života miliona populacija.

2. STRATEŠKE ODLIKE GLOBALNOG PREDUZETNIŠTVA

Opštepoznati elementi koje bi jedno potencijalno održivo (uspešno) preduzeće trebalo efikasno da poveže su: stručnost, tehnologija, infrastruktura, konsultativna podrška, finansijski pristup, poslovni prostor, pravna regulativa. Međutim, kao glavnu odliku globalizacije autor [1] navodi „unifikaciju nacionalnih sistema u svim segmentima drušenog života (društvenom, političkom, ekonomskom, socijalnom, kultrnom i naučnom)". Takođe, autor [1] konstatuje da „savremeno društvo zahtijeva, drugačije ponašanje, odnosno konstantno ponašanje a to znači i odgovarajući menadžment u kontekstu globalnih promjena". Etimološki, reč *globalizacija* vodi poreklo od latinske reči *globus* što znači *lopta, kugla* na šta se autor [1] osvrće kao na model ionako već kontradiktornog tumačenja samog fenomena od strane ekonomista koji su *pro* ili *contra* liberizaciji tržišta. Dok se generalno, globalizacija u svim aspektima društva smatra spajanjem, integrisanjem vitalnih delova nacionalnih privreda, neki autori poput [2] ističu da rukovoditeji (hrv. prevod) „ozbiljnu pozornost trebaju posvetiti značajnim i trajnim razlikama među zemljama prilikom razvoja i prosuđivanja strategija". Iako je globalna strategija sa organizacionog spekta okrenuta ka globalizaciji, za kreiranje globalne vrednosti je jako bitno adekatno razumevanje lokalnih i kulturoloških razlika od strane kompanije koja zaista želi da svoje globalno prisustvo opravda ne samo neophodnošću već i kompetitivnom prednošću. No, često se pritom globalizacija sa aspekta preduzetništva još više divergira u tumačenju, npr. kada autor [3] iz 2002. godine jasno napravi razliku između tzv. "nove globalizacije" i "konvencionalne (mejnstrim)" globalizacije, razlikujući ih na osnovu perspektive svetskog investicionog izveštaja Ujedinjenih Nacija iz 2002. godine koji glasi: „nova perspektiva usredsređena je prvenstveno na obrasce rasta na makro nivou u trgovini i direktnim stranim investicijama, te upoređuje te podatke s nacionalnim stopama rasta BDP-a, ali bez ikakve analize ekvivalentnih podataka o rastu multinacionalnih preduzeća na mikro nivou odgovornih za trgovinu i direktna strana ulaganja" (slob. prev. koautora sa engl).

3. PREDUZETNIČKI EKOSISTEM – PRIMENA EKOLOŠKOG MODELA NA ORGANIZACIONU STRUKTURU POSLOVANJA

3.1. Ekosistem preduzetništva i biznis ekologija

1993. godine Džejms F. Mur u svom članku [4] iz Harvardskog poslovnog pregleda (Harvard Business Review) prvi put uvodi u naučno-stručnu upotrebu ekološku terminologiju, spajajući pritom do tada strogo ekonomske kategorije poput „tržišta“, „poslovanja“ i „poslovnih subjekata“ u jednu dimenziju primenljivu u svim sferama održivog razvoja gde kaže:

„Ekonomska zajednica bazično podržana interakcijom organizacija i pojedinaca predstavlja organizam poslovnog sveta. Ekonomska zajednica proizvodi usluge i proizvode od vrednosti za kupce, koji su i sami članovi ekosistema. Organizmi-članovi takođe se odnose na dobavljače, vodeće proizvođače, konkurente i druge zainteresovane strane. Vremenom, oni *koevoluiraju* u svojim sposobnostima i ulogama i nastoje se uskladiti s uputama jedne ili više centralnih preduzeća. Preduzeća koja imaju vodeće uloge mogu se menjati tokom vremena, ali funkcija vođe ekosistema je cenjena od strane zajednice jer omogućava članovima da se kreću prema zajedničkim vizijama kako bi uskladili svoja ulaganja i pronašli uloge koje se *međusobno podržavaju*“ (slobodan prevod koautora sa engl.)

Jedno je sigurno, savremeni biznis odlikuju veoma kompleksne relacije među preduzećima što autore [5] i [6] navodi da se s pravom pozivaju na neophodnost novih subdisciplina poput *biznis ekologije* objašnjavajući dalje [5] da je “biznis ekologija studija recipročnih veza između biznisa i organizama i njihovog okruženja i da je njen cilj “ održivost kroz kompletnu ekološku sinhronizaciju i integraciju poslovanja putem svih aspekata koje ona inhabira, koristi ili utiče.” Dok kroz stav tzv. environmentalizma (engl. environment – okruženje, okolina) autor [6] otvoreno predlaže da mešanje vlade u biznis treba da bude što diskretnije jer sam biznis funkcioniše na „prirodnim principima“.

3.2. Ekologizacija – preventivna mera održivog razvoja

Koncept održivog razvoja (eng. Concept of sustanaible development) nema zvaničnu definiciju ali se uglavnom određuje definicijom koju je 1987. godine dala Svetska komisija za okruženje i razvoj pri Ujedinjenim Nacijama (tzv. Brutland komisija) [7] koja glasi: „“Održivi razvoj je razvoj koji zadovoljava potrebe sadašnjice, ne dovodeći u pitanje sposobnost budućih generacija da zadovolje vlastite potrebe”.

Održivi razvoj podrazumeva ravnotežu između potrošnje resursa i sposobnosti obnavljanja prirodnih sistema. Kvalitativnu intersekciju između ekologije i ekonomije predstavlja ekonomki razvoj, jer kako autor [7] dalje primećuje, statistički pokazatelji poput GDP-a sami po sebi nisu više dovoljni jer „ne postoje instrumenti ekonomskog razvoja koji bi vrednovali socijalnu i ljudsku cenu plaćenu za efekte nastale usled ekonmskih aktivnosti (zagađenje vazduha, npr.)“ i konstatuje da „nije moguće imati kvalitetan i dostojanstven život u nezdravoj i devastiranoj životnoj sredini“.

Usled takvog ekonomskog javnog mnjenja koje je uveliko svesno da se modernizacija savremenih ekonomskih mehanizama ne može sprovesti bez adekvatnog oblika transformacije postojećih modela kako na nacionalnom tako i na globalnom nivou poslovanja, *ekologizacija* preduzetništva prestavlja kako preventivnu meru samog koncepta održivog razvoja tako i instrumentalnu politiku na globalnom nivou od strane vodećih svetskih organizacija poput EU, gde

se u dokumentu Evropskog revizorskog suda iz 2017. godine jedne od zemalja regiona-članice Evropske Unije (Hrvatska) jasno definiše ekologizacija kao instrument podsticaja u (poljo)privredi [8]: *„Ekologizacija je nova vrsta izravnih plaćanja uvedena reformom zajedničke poljoprivredne politike (ZPP) iz 2013. godine. Osmišljena je s ciljem nagrađivanja poljoprivrednika za pozitivan učinak na okoliš koji u suprotnome ne bi bio nagrađen na tržištu. Riječ je o jedinom izravnom plaćanju čiji se glavni utvrđeni cilj odnosi na okoliš. "*

Savremeno restrukturiranje preduzeća na nivou poslovne politike se danas naziva *ekologizacijom preduzetništva* i uvodeći u poslovnu, organizacionu i pravnu praksu ekološke principe [9] takva preduzeća (*prim.koaut*. takva, jer je ekologizacija na globalnom nivou još uvek mera podsticaja i preventive a ne standardna procedura) se prepoznaju kao održiva/ekološka preduzeća a ekonomija bazirana na izučavanju životne sredine ekonomija životne sredine; dalje, autori [9] potkrepljuju teoriju međuzavisnosti na relaciji ekologija – biznis činjenicom da ekološka preduzeća stvaraju vrednost na isti način kao ekosistemi: ne proizvodeći otpad niti trošeći neodržive resurse.

3.3. Ekoefikasnost

Eko-efikasnost je prepoznata kao vid transformacije iz neodrživog razvoja ka održivom razvoju. Trebalo bi da predstavlja balans između ekologije i ekonomije, gde poslovne aktivnosti ne uništavaju okolinu. Sama ta zelena transformacija ekonomije predstavlja u suštini *odgovornost proizvođača robe i usluga*, a odgovornost se odnosi na celokupni ljudski uticaj na okolinu. Preduzeća, vlade, poslovna udruženja, istraživačke organizacije, kao i kupci i dobavljači su pioniri ovog koncepta u poslovanju. Eko-efikasnost je prepoznata je kao značajan poslovni pristup [10] od strane „svetskih igrača" kao što su Organizacija za ekonomsku saradnju i razvoj (OECD) i Evropska agencija za okolinu (EEA).

3.3.1. *Tehnocentrizam i ekocentrizam apsurdi ekologizacije*

Bilo da se radi o zemljama u razvoju ili zemljama trećeg sveta, jedno je sigurno, razvoj samog enviromentalizma je doprineo *etičkoj dilemi* između zaštite životne sredine i potrebe za razvojem takvih zemalja. Konkretno u Jugoistočnoj Evropi, vodi se velika polemika o neadekvatnom investitorskom pristupu, te je 2018. godine kao primer ekologizacije u građevinarstvu donešen okvirni investicioni plan EBRD-ovog programa Zeleni gradovi koji predviđa Projekat vodosnabdevanja Banjaluke, Zeleni vozni park Beograda, Nabavku autobusa za Skoplje, Tretman otpadnih voda u Skoplju *i* Energetsku efikasnost zgrada u Podgorici.

Dok recimo Nigerija, prema [12] (slob.prev.koaut) „ima nekoliko zakona o okolišu koji osiguravaju načela i smjernice za upravljanje okruženjem". Neki od njih uključuju:

- Štetan otpad (posebna kaznena odredba itd.) Uredba 42 1988 (prvi «specifičan» Zakon o okolini u Nigeriji koji je bio reakcija na odlaganje toksičnog otpada u to vreme),
- Procena uticaja na okolinu (EIA), 1992. (Revidirano 2007.),
- Nacionalna politika o okolini, 1989. (Revidirano 1999., 2007. i 2009.),
- Nacionalna zaštita okoline (saniranje i Propisi o kontroli otpada 2009.).

Iako su nusprodukti enviromentalizma i same ekologizacije kao procesa ciljno različiti, u literaturi enviromentalizma se naglašava da [13] „čovečanstvo mora primeniti tehnološka sredstva na takav način da negativni uticaji na resurse okoline budu što je moguće manji, i dalje se navodi [13] da se to se mora učiniti uvođenjem „izvedivih" političkih okvira sa spoznajom da svi resursi okoline i entiteti imaju jednaka pravo kao i bilo koji drugi drugi". (slob. prev. koautora)

4. EKOINDIKATOR EKONOMSKOG RASTA - GLOBALNI INDEKS PREDUZETNIŠTVA - *GLOBAL ENTREPRENEURSHIP INDEX* (GEI)

Prema [13] globalni indeks preduzetništva (engl. GEI) je godišnji indeks koji meri zdravlje preduzetničkih ekosistema u svakoj od 137 zemalja. Preduzetništvo je ključni pokretač ekonomskog rasta. Bez preduzetnika i preduzetništva, bilo bi malo inovacija, mali rast produktivnosti i malo novih radnih mesta. Preduzetnički uspeh se ne odvija u vakuumu. Preduzetnici postoje u kontekstu svoje specifične geografije - bilo da je to njihova lokalna, nacionalna ili čak nadnacionalna ekonomija i društvo. Ova mešavina stavova, resursa i infrastrukture poznata je kao „ekosistem" preduzetništva, a on se meri putem Globalnog Indexa preduzetništva - GEI (eng. Global Entrepreneurship Index). Globalni indeks preduzetništva je kako autor navodi [11] složen pokazatelj zdravlja preduzetništva u ekosistemu u datoj zemlji. GEI meri i kvalitet preduzetništva i obim i dubinu podupiranja preduzetničkih ekosistema.

U tabeli br.1, prvo ćemo od ukupno 137 zemalja, prikazati prvih deset zemalja za 2018. godinu i radi pregleda i za 2017. godinu u ostvarenom GEI, a zatim dalje, radi poređenja i realnog sagledavanja mesta Srbije kao zemlje u odnosu na zemlje u okruženju, ali i u odnosu na najrazvijenije zemlje u tabeli 2, dati prikaz Republike Srbije i zemalja u okruženju:

Tabela 1: Rangiranje razvijenih zemalja prema otvorenim podacima GEI

Zemlja	GEI 2018 %	GEI Rangiranje 2018	GEI Rangiranje 2017
SAD	83.6	1	1
Švajcarska	80.4	2	2
Kanada	79.2	3	3
Velika Britanija	**77.8**	**4**	**8**
Australija	75.5	5	7
Danska	74.3	6	5
Island	74.2	7	6
Irska	73.7	8	9
Švedska	**73.1**	**9**	**4**
Francuska	68.5	10	10

Izvor:. Zoltán J. Ács László Szerb Ainsley Lloyd, (2018),
"The Global Entrepreneurship Index", GEDI, podaci uzeti iz tabele 2, strana 30.

Prvih deset zemalja za 2018. godinu pokazuju sličan obrazac prošlogodišnjih – visokih prihoda. Glavne zemlje su Sjedinjene Države, Švajcarska, Kanada, Velika Britanija, Australija, Danska, Island, Irska, Švedska i Francuska.

U tabeli 1. su označena dva velika iznaneđenja, a to su zemlje Velika Britanija i Švedska. Kao što se može videti, glavno iznenađenje godine je kretanje Velike Britanije sa 8. na 4. mesto i pad Švedske sa 4. mesta na 9. mesto. Zato što su rezultati u najvišem rasponu bliske, male promene, u rezultatu iz godine u godinu može se proizvesti relativno velika promena u redovima među prvih deset.

Tabela 2: Rangiranje zemalja Jugoistočne Evrope prema otvorenim podacima GEI

Zemlja	GEI 2018 %	GEI Rangiranje 2018
Slovenija	54%	25
Rumunija	38%	46
Grčka	37%	48
Hrvatska	34%	54
Crna Gora	31%	60
Bugarska	28%	69
Srbija	**26%**	**74**
Albanija	24%	83
Bosna i Hercegovina	21%	95

Izvor: : Zoltán J. Ács László Szerb Ainsley Lloyd, (2018), *"*The Global Entrepreneurship Index", GEDI, podaci uzeti iz tabele "*The table below shows the rank of each country in the 2018 Index"*, strana 5.

Kao što se može videti iz tabele 2, od devet rangirangiranih zemalja iz okruženja, Slovenija je definitivno na vrhu sa ostvarenih 54% GEI, dok Republika Srbija zauzima 7. mesto, sa ostvarenih 26 % GEI. Iza nje su Albanija (24%) i Bosna i Hercegovina (21%).

5. ZAKLJUČAK

Pokretači preduzetništva su kapital i profit. Faktori koji će preduzeća održati na globalnom nivou kao multinacionalne poslovne entitete jesu spremnost na održivost i kompetitivna prednost u poslovanju. *Trajna tehnika održivog razvoja je prilagođavanje , standardizacija*, *koja je trenutno na ovom društvenom stupnju samo podsticaj i inicijativa* od strane velikih svetskih organizacija (EU, OUN mnogih drugih NVO tela) putem predloga, propisa, ali koja zahteva i sposobnost implementacije ekoloških standarda od strane nacionalnih aktera. Ekologizacija je proces transformacije ekonomije u ekološki održivu privredu i na makro i mikro nivou i određuju je indikatori ne samo kvantitativnog karaktera (GEI, GEDI metodologija itd.) već i kvalitativne posledice merljivosti tih ekonomskih veličina kao što su: suma individualnih odgovornosti, proizvodnja (reciklaža) "bez trošenja" neodrživih resursa, socijalni aspekt pozitivnog učinka na društvo u vidu povećanja broja radnih mesta, edukacije i same kulture. Preduzetništvo se često posmatra kao "ekonomija mladih" i s obzirom da je *ekologizacija* globalna mera održivog razvoja usmerenog i na razvijene i na zemlje u razvoju, te ostaje da se posmatra dalji tok primenjene ekologije: da li će stopa niskog ekonomskog rasta recipročno uticati na individualnu odgovornost, koju u takvim zemljama podstiče činjenica da je samoinicijativa glavni stabilizator nacionalnih ekonomija, s obzirom da je ekologizacija kako pitanje globalnog standarda, tako i moćan instrument u rukama odgovornog poslovnog subjekta.

LITERATURA

[1] Atlagić, M. (2010). Process of globalization and basic traits of Serbian national character, *Zbornik radova Filozofskog fakulteta u Prištini*, (40), 201-208., p.202

[2] Ghemawat, P. (2007) *Redefining global strategy*: *Crossing borders in a world where difference still matter*, Harvard business school, za hrvatsko izdanje MATE d.o.o, Zagreb (2010), p.1

[3] Rugman, A. M., & Verbeke, A. (2004). A perspective on regional and global strategies of multinational enterprises. *Journal of international business studies*, *35*(1), 3-18 p. 3

[4] Moore, J. F. (1993). Predators and prey: a new ecology of competition. *Harvard business review*, *71*(3), 75-86.

[5] Townsend, A. K. (2006). *Green business: A five-part model for creating an environmentally responsible company*. Schiffer Pub Ltd., kao referenca na: https://en.wikipedia.org/wiki/Business_ecosystem

[6] Marshall, A. (2002). *The unity of nature: Wholeness and disintegration in ecology and science*, kao referenca na: https://en.wikipedia.org/wiki/Business_ecosystem

[7] https://www.ekapija.com/news/890123/odrzivi-razvoj-priroda-i-ekonomija-sta-mora-da-bude-nas-prioritet izvor: Ecolist , autor Ivan Jojkić (datum pristupa: 15.04.2019)

[8] Europski revizorski sud, Priopćenje za medije. Luxemburg 12. prosinca 2017. https://www.eca.europa.eu/Lists/News/NEWS1712_12/INSR_GREENING_HR.pdf (datum pristupa: 15.04.2015)

[9] Radulović, J., Milanović, T., Jovanović,R. (2018) *Ekološki model preduzetništva u funkciji održivog razvoja u uslovima globalizacije,* International Journal Knowledge, Scientific Papers, Vol.28.1,189-193 , p. 189-190

[10] https://www.worldatlas.com/articles/the-concept-of-eco-efficienty-why-is-it-so-important-for-the-modern-world.html (datum pristupa: 15.04.2019)

[11] https://thegedi.org/global-entrepreneurship-and-development-inde (datum pristupa 15.04.2019)

[12] Ijaiya, H., & Joseph, O. T. (2014). Rethinking environmental law enforcement in Nigeria. *Beijing L. Rev.*, *5*, 306, kao referenca u [13]

[13] Emetumah, F. C. (2017). Modern Perspectives on Environmentalism: Ecocentrism and Technocentrism in the Nigerian Context. *Asian Research Journal of Arts & Social Sciences*, 1-9., p. 6

[14] Acs, Z. J., & Szerb, L. (2009). The global entrepreneurship index (GEINDEX). *Foundations and Trends® in Entrepreneurship*, *5*(5), 341-435, p 30. and 5.

BUSINESS ENVIRONMENT IN SERBIA – IMPACT ON TOURISM OPERATIONS – TOURIST ORGANIZATION OF THE CITY OF VRANJE

Biljana Ilić[1]
Vidoje Stefanović[2]
Dragica Stojanović[3]

DOI: https://doi.org/10.31410/EMAN.2019.299

Abstract: *Tourism is one of the fastest growing branches of the Serbian economy in which much potential is recognized, but still largely underutilized. The level and manner of potential utilization is currently inadmissibly low, without any clear indicators which would point out a problem-solving progression plan. Business entities from the tourism sector are constantly exposed to unpredictable market changes and to the impact of the business environment in which the level of competition is constantly increasing. In addition to strengthening their own internal environment in order to prevent stagnation in following market trends, tourist organizations in Serbia pay great attention to the limiting factors that are imposed by the state administration and local self-government. For this reason, there is a lot of effort to ensure an unhindered business process and the possibility of obtaining assistance from the state of Serbia, or the cities in which tourist organizations operate. In order to ensure that Serbian tourism doesn't turn into a missed opportunity, systemic solutions are needed. The paper gives a modest contribution to tourism business in Serbia. The authors described the environmental factors in which business entities in the industry operate, as well as the ways in which the factors influence tourist demand. The paper puts emphasis on Tourist Organizations (TO) and as an example, it presents the case study of Tourist Organization of Vranje - city in Eastern Serbia. SWOT analysis points to the possibility of achieving better operations of this tourist organization indicating that such business practices could be applied to other tourist organizations in Serbia.*

Keywords: *business environment, tourism business, development policy, tourist organization Vranje, Serbia.*

1. INTRODUCTION

Every company tends to operate in a distinctive business environment, to ensure the greater activity. The business environment can be viewed as a group of individuals, entities, and other factors which may or may not be under the control of the enterprise, and may affect its performance, profitability, growth and survival. The business environment is a marketing term that refers to everything that affects the ability of the business organization, to build its image [1]. This is a complex system which consists of the elements that require a number of management activities. In a market economy, where private property is the dominant form of ownership, companies appear in two basic forms: individual associations and capital companies. Individual associations, in legal form can be own company or partnership company. Capital companies appear as limited liability companies and corporations [2]. Besides these forms of enterprise, there are organizations in the tourism sector (important for paper), which operate as public institutions or organizations. Uncertainty modern business enterprise is conditioned by

1 Faculty of Management Zaječar, Park Šuma Kraljevica bb, Serbia
2 University of Niš Faculty of Science and Mathematics, Višegradska 33, Niš, Serbia
3 Faculty of Management Zaječar, Park Šuma Kraljevica bb, Serbia

the dynamic and complex environment that leads to new directions in business. The new direction was named „sustainability" that refers to the business processes that have some impact on the natural environment [3]. Tourism is a complex economic activity with number of elements and it is necessary to pay attention on the impact that has on the environment [4]. Tourist business is determined by economic, social and political factors. All these factors create specific environment. After the introductory part, the second part of the paper relates to the environmental factors and their impact on business entities with an emphasis on the tourism business. As tourism is the economic perspective of economic development, the paper emphasizes the aspect of tourism business through tourism organizations. In the third part, it is presented the business of tourist organizations in Serbia as separate organizations. In paper authors presented the SWOT analysis of the Tourist Organization in Vranje and highlighted strengths, weaknesses, opportunities and threats of the Tourist Organization of Vranje - which can be a guide for creating a more efficient touristic business.

2. BUSINESS ENVIRONMENT FACTORS AND THEIR IMPACT ON TOURISM BUSINESS

Tourism, as a socio-economic phenomenon, represents the movement of people in order to meet their tourist needs. In the new century, tourism has become the main economic power. A tourism organization consists of many resources, but human resources primarily make its most sophisticated and most important component. Contemporary human resources management in an organization is not a small task for tourism organizations that are constantly interacting with the whole environment, not only with existing or potential customers. It is necessary to list six environmental factors that have an impact on the company and which can be seen from the aspect of tourism companies, that is, the overall tourism business in Serbia. These are: demographic environment, economic and competitive environment, natural environment, science and technology, political and legal environment and socio-cultural environment. Figure 1 shows six environmental factors of a business entity.

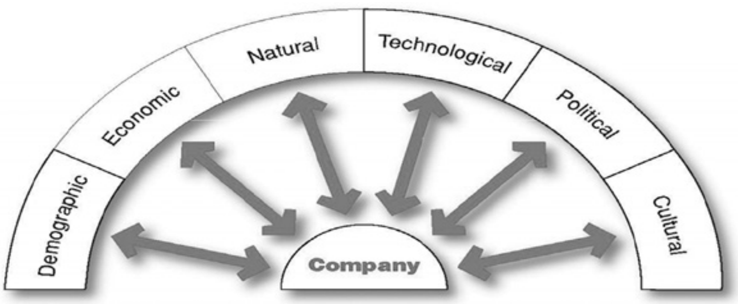


Figure 1. Types (factors) of a company environment
Source:[5]

The demographic environment includes changes and trends in population movements, primarily the following ones: population, population growth rate, gender structure, age structure, family structure, etc. The impact of the demographic environment on tourism business is multiple. Namely, there are more established norms and rules of behavior in the domicile population in certain regions of the country which are very attractive for tourists. A modern traveler wants to satisfy his needs in a way that allows him to get to know as many local customs as possible, as well as the everyday life of the inhabitants of the region. A modern tourist also often shows interest in the partial assimilation in the environment that he is currently visiting. Therefore, the way in which tourists experience certain habits of the domicile population will have a major

impact on the number of visits made to the specific region. It is necessary that the state promotes certain regions of the Republic of Serbia as much as possible, with constant emphasis on the positive aspects of the way of life and interesting national customs. The number of tourist visits is directly related to the degree of migration incentives in certain regions of the country. As far as economic environment is concerned, maximum profit and minimal costs are the primary goal of every form of business. *Economic environment* consists of factors that affect the purchasing power of consumers and their habits. Economic factors are dynamic; they change quickly and interact with other macro environment factors. Special attention is paid to the inflationary or recessionary state of the economy, as well as changes in general satisfaction and consumer reaction. The demand for some products mainly depends on the monetary amount that the consumer has after settling basic existential needs and obligations [5]. Economic environment also has an influence on tourism business. Namely, a stable economic situation and economic investments into certain tourist facilities or products in order to improve them will inevitably create a positive trend when it comes to tourist visits to specific destinations. For example, if the state of Serbia invested certain funds in the innovation of its rehabilitation centers, such as spa health resorts, modern tourists would have more desire and motives to visit them. *Political environment* is important especially in terms of making long-term strategic decisions. State regulation and political system of the country condition the synergic effect of all the environment factors on the development of business systems and the successful survival of companies in the turbulent environment. The influence of the environment on management is manifested in the changes in the indirect and direct business environment. This environment is manly composed of legal regulations and regulatory activities that can create new opportunities for business operations [5]. Consumer protection regulations regarding the quality of products, packaging, maintenance methods, etc. are also being adopted. Also, regulations are adopted for the protection of broader social interests in the fields of environmental protection, citizens' protection, general security, etc. The political environment is one of the crucial factors of tourism trends and tourism business, which is mostly reflected in the fact that stable political situation in a country makes the biggest impression, i.e. sense of security for potential and existing tourists. In social crises, increased terrorism, war dangers and natural disasters, the need for security is emphasized. This group of needs differs from the others because its satisfaction is not only an objective, but also a precondition for the emergence and satisfaction of other tourist and life needs. *The natural environment* includes all the natural resources that are needed as inputs or are the result of marketing activities. Their availability, such as land, water and mineral wealth, affect all the participants in the economy. In many cities around the world, air and water pollution has reached a critical edge, so that they have become a serious problem. New directions of technological development far more emphasize the rationalization of water use as one of the conditions for maintaining both biological conditions and the provision of sufficient quantities of water for industrial processes. Similar is the situation with energy, especially of the fossil origin. We are talking here about saving energy from the point of view of the existing possibilities for their use, as well as searching for energy sources alternatives in relation to classical sources [6]. Natural environment is one of the most important factors of tourism supply and demand, that is, tourism business in every country. Tourist visits to certain regions will depend on natural resources such as ecological parks, spas as sources of thermo-mineral and healing waters, mountains and rivers. As a country, Serbia abounds in natural intact resources that are an attraction for foreign and domestic tourists. Nevertheless, attention must be paid to the impact that tourist business has on natural resources, and maximally protect each ecosystem from pollution. *Science and technology* can lead to revolutionary changes in many areas of social life. Technology has a major impact on the marketing of products and services. New technology can bring new discoveries which will not only serve as a substitute for the existing products,

but can directly cause the disappearance of the same – and consequently of entire companies. The degree of the development and implementation of innovations is not equal in all the sectors of the economy, and it is the task of marketing managers to continuously search for new areas of applications in their areas of business in order to ensure the successful operation of the companies they manage. *The cultural environment* consists of institutions and other forces that influence the basic values of the society, the perceptions of people and their behavior. In addition to beliefs and values as central elements of every culture, it is necessary to look at customs, myths and rituals as well. Subcultures analysis is of great importance in order to preserve the entire cultural heritage of the whole country as a potential tourist destination. The market research process is decisive when it comes to knowing your future service users, through precisely identifying their key interests and opening up opportunities to shape a future lifestyle. One should not ignore the existence of consumer ethnocentrism in individual cultures and the degree of its influence on decisions in everyday consumption. The survival of a business entity and its progress in modern conditions depend solely on its abilities to adapt its range of products or services to market demands. Products and services are not provided solely for the purpose of selling, but also in order to fulfill the wishes and expectations of the consumers. This is very difficult to implement today, so business entities must be transformed into leadership companies that will achieve a differential advantage in the global market [7]. Businesses are increasingly focused on the implementation of business politics and human resources development tools that involve investing in lifelong learning [8]. All this also applies to tourism, which, as a business activity, has its specifics which clearly distinguish it from the group of other activities. The most important characteristics of tourism as an economic activity are: 1) heterogeneity of the structure, 2) high degree of elasticity of demand for tourist services and the inelasticity of the offer, 3) emphasized seasonal character of the business, and 4) the specifics in terms of productivity [9].

3. BUSINESS ENVIRONMENT AND CHARACTERISTICS OF BUSINESS ACTIVITIES OF TOURIST ORGANIZATIONS IN SERBIA

The business environment in Serbia is constantly changing. The changes are represented in the data from the “1000 Companies” survey conducted by the Chamber of Commerce of Serbia in cooperation with IPSOS Strategic Marketing [10]. The respondents stated that corruption has the most negative impact on business operations in Serbia, especially in smaller companies, in terms of various unauthorized actions, from taking bribes to recruiting staff by political line. Tourism business in Serbia is also subject to these market and environment laws. Since tourism organizations (TOs) belong to the category of smaller enterprises, and their influence on the income generation in a country can be of great importance, managing tourism organizations is one of the main tasks of tourism. In theory and practice, three basic models of tourist destination management have been singled out: destination management by the public sector (which is the case in Serbia), destination management by private companies and destination management according to the model of public-private partnership. The basic model of destination management in the territory of Serbia is entrusting the responsibilities of managing the destinations to tourism organizations. Tourism organizations are public companies that conduct tourism promotion and the development of a particular destination. Since destination is a broad term, three levels of tourism organizations are identified, including: National Tourism Organizations (NTOs), Regional Tourism Organizations (RTOs), and Local Tourism Organizations (LTOs) operating on the territory of a city of municipality (e.g. TO Vranje). The picture of the business practice in Serbia shows certain deviations from legally correct functioning of tourism organizations. According to the Law on Tourism of the Republic of Serbia, tourism organizations are established for the purpose of conducting tourism development and coordination of all the

participants in the tourist offer of a destination, but also for the promotion of tourist destinations in the country and abroad. However, some cases in practice serve as examples of the fact that several local tourism organizations completely ignore its first role, that is, they deal with promotional activities exclusively. Organizing and dealing with tourism development is a far more difficult task than promoting tourism, and the results of development activities are not so visible. TO on a local level mainly employs a smaller number of employees (minimum two) and it is therefore complicated to make employee adjustments for some significant changes. The situation in Serbia drastically differs from the countries where tourism is one of the main priorities, such as Spain and Greece. By assessing the required number of quality personnel in tourism, the mentioned countries have made a system through dual education from which the educated workforce comes out with training and practice [10]. Budget size is also one of the causes of bad TO business operations. It often happens that representatives of local authorities only verbally support tourism development, which does not manifest itself in necessary financial allocations. Tourism organizations do not often have appropriate assistance from other public companies. Lack of responsibilities for the achieved results can also be considered as the cause of poor development of tourism organizations business. Very often, local tourism organizations do not have clearly defined and measurable objectives. It is crucial to clearly establish who is responsible for the (under)achievement of the pre-set goals. Employees in TOs receive their salaries regardless of the degree of success in their work. For this reason, the employees are not exposed to any external motivator.

4. SWOT ANALYSIS OF THE TOURISM ORGANIZATION OF VRANJE

In order to clarify the way of doing business in tourist organizations in Serbia, SWOT analysis was carried out on the case study of the Tourism Organization in the city of Vranje. The founder is the city of Vranje and it has a local character. Currently, TO Vranje is merged with the public company “Ski Resort”. Since its establishment in 1995, TO of the city of Vranje has directed its activities towards preserving the rich tradition of Vranje. It deals with the promotion of cultural, economic and tourism values and potentials, souvenir and publishing activities, distribution of tourism promotional material, participation in tourism fairs and exchanges, organization of excursions, sports, cultural and tourist events. TO Vranje provides more information on tourist facilities and resources in the city and in the surroundings, and thus entertains potential guests [11]. SWOT analysis is one of the tools of strategic management that is most often applied for the analysis of the environment of business entities. SWOT analysis helps top management to determine what the business entity is doing better than its competitors and vice versa. It represents the analytical framework of the business entity management – internal analysis (presentation of relevant information on the state of key factors within a business entity), and external analysis (presentation of relevant information on the state of key factors operating in the environment of the entity). As the goal of the Tourism Organization of Vranje is the improvement and promotion of the tourist offer of this region [12]. The SWOT analysis revealed the strengths, weaknesses, opportunities and threats of the organization. By brainstorming, all the employees (28) came out with their ideas about the work of the tourism organization. In a discussion, the top managers of the organization highlighted the most important characteristics based on which the authors of the paper have done the SWOT analysis shown in Table 1.

Table 1. SWOT analysis – Tourism Organization of the city of Vranje

Strengths	Weaknesses	Opportunities	Threats
A rounded process where tourists get information about the city and its surroundings in one place	Poor communication among employees – "from top to bottom"	Entering foreign markets with new tourist offers	Competition on the market
Shorter period for providing necessary information to tourists compared to competition	Insufficiently developed cooperation with other organizations	New projects supported by the state and the municipality	Rapid technical and technological progress and business innovations
High quality of service when it comes to providing information	Too many employees in TO Vranje	Cooperation with media	Poor economic situation in the country
Great possibility of placing information through new technologies (Internet, and especially social networks)	-	Cooperation with local community	-
Employees experienced in areas closely related to tourism (e.g. skiing)	-	Recognition with additional promotion	-

Source: author's research

5. CONCLUSION

It can be concluded from the presented SWOT analysis that the Tourism Organization of the city of Vranje would have to make the most of the benefits of Internet technologies, improve communication with potential tourists and create a positive relationship between tourists and the organization. The opinion of satisfied consumers will certainly be one of the important sources when it comes to formulating strategy and achieving goals as long as it is possible to increase the number of tourist visits in the region of Vranje in this way. Without neglecting the positive effects of economic reforms that caused a higher inflow of foreign investments, a complete exploitation of the potential effects of foreign capital inflows requires systematic efforts in economic policy, primarily in the improvement of the overall business environment, but also in attracting foreign investments to those industries in which Serbia has comparative advantage and greatest development potential. The implementation of new technological solutions and improvement of employees' knowledge and skills would influence the growth of competitiveness, market development and technological progress of the country. The factors within the organization itself also have a major or perhaps even the greatest impact on the organization's business operations. The way of doing business and organization's appearance on the market and its image in the eyes of the public will depend on the internal structure, culture, education of employees, delegation of responsibilities. Since the essential task of tourism is to manage and market tourist destinations of a country in the best possible way, it is necessary that the work of tourist organizations to be addressed primarily by the local self-government which would be controlled by competent state authorities.

REFERENCES

[1] Ivković, D., Karavidić, S., Kosarkoska, D. (2011) *Osnovi finansijskog menadžmenta*, Visoka škola za poslovnu ekonomiju i preduzetništvo, Beograd, p. 27.
[2] *Edukacija, Osnovne karakteristike privrednih društava*, Internet: http://edukacija.rs/poslovne-vestine/menadzment/osnovne-karakteristike-privrednih-drustava
[3] Ilić, B., Pavićević, N. (2018) *Izbor ekonomsko-ekoloških razvojnih pravaca turizma primenom metoda višekriterijumskog odlučivanja - studija slučaja Gamzigradska Banja*, Društvo ekonomista „Ekonomika", Niš, No 64, pp. 147-149.
[4] Unković, S. (1995), *Ekonomika turizma*, Centar za izdavacku delatnost Ekonomskog fakulteta, Beograd, p. 426 str.
[5] Veljković, S. (2017), *Marketing okruženje*, Internet: http://www.ekof.bg.ac.rs/wp-content/uploads/2014/05/Marketing-okruzenje-Veljkovic.pdf
[6] Ilić, B. (2016) Strategijski pravci regionalnog ekonomskog i ekološkog razvoja turističkog potencijala Gamzigradske banje", *Doktorska disertacija*, Fakultet za menadžment Zaječar.
[7] Stefanović, V., Mihajlović, D., Ilić, B. (2017) *Transformacioni lideri – neophodnost savremenog poslovanja*, Megatrend Review, 14 (2), pp. 291-308
[8] Stefanović, V. (2017) *Terač -teorijski koncept privrednog razvoja pograničnih opština istočne i jugoistočne Srbije*, Mašinski fakultet, Niš, str. 139 str.
[9] *Poslovno okruženje u Srbiji značajno poboljšano* (2015), Internet: https://www.blic.rs/biznis/poslovno-okruzenje-u-srbiji-znacajno-poboljsano/6fc6371, datum posete: 27.11.2018.
[10] Trišić, M., Šormaz, G. (2018) *Potencijalni doprinos dualnog obrazovanja u razvoju privrede Republike Srbije*, Trendovi u poslovanju - Nacionalna naučno-stručna konferencija sa međunarodnim učešćem, Kruševac, str. 301.
[11] Đorđević, B., Figar, N., Milojević, R. (2011), Upravljanje resursima preduzeća, Ekonomski fakultet, Niš, p. 357.
[12] *Turistička organizacija Grada Vranja* (29.11.2018.), Internet: https://turistickavranje.rs

ETHICS OF THE LEADER
– AN ESSENTIAL CONDITION FOR BUSINESS SUCCESS

Buzamat Genoveva[1]
Silvia Patruica[2]

DOI: https://doi.org/10.31410/EMAN.2019.307

Abstract: *The mission of ethics is not only to expose the theoretical aspects of morality, but also to be a practical, real guide in guiding and improving the moral life of society. Defined over time in different ways, depending on the context or the specific field of practical applicability, ethics has been focused on the principles and standards that should govern the social relationships between individuals and organizations and have always prompted the interest of those interested in living in a better world, mindful of the needs and aspirations of others, to appreciate true human values and to promote exemplary patterns of behavior.*

The role of ethics is to help people and institutions decide what is best to do, what criteria to choose and what their moral motivations are in their actions. For Romanian companies confronted with the difficulties arising from the transition from one society to another, from one system of values to another, business ethics is not only a new issue but a very important one. Achieving the balance between ethics and profitability in a society in which there is a major competition in capital and wealth, accumulation is proven to be a problem hard to solve.

In Romania, managerial ethics is of particular importance as compared to other countries with well-established market economy mechanisms. Ignoring ethical business development under the pretext that law enforcement (which are often contradictory) is sufficient is the same as ignoring the fact that managers are not simply executives when faced with decisions with ethical implications, they have their own values, often being forced to choose between personal aspirations and organizational responsibilities.

Keywords: *ethics, responsibility, leader.*

---

1. INTRODUCTION

Ethics has been defined over time in various ways, depending on the context or the specific field of practical applicability, focusing on the principles and standards that should govern social relationships between individuals and organizations and it has always maintained the concern of those interested in living in a better world, being attentive to the needs and aspirations of others, and being designed to appreciate true human values and to promote exemplary patterns of behavior.

In the explanatory dictionary of the Romanian language, ethics is defined as the science dealing with the theoretical study of values and human condition from the perspective of moral principles and their role in social life. [7]

---

[1] Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, 300645-Timisoara, Calea Aradului 119, Romania

[2] Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, 300645-Timisoara, Calea Aradului 119, Romania

Morality is represented by the set of norms of coexistence, by the behavior of people to each other and to the community, and the violation of which is not sanctioned by law, but by public opinion. In Romanian society, morality is most often related to religion, to Christian moral and tradition, on the distinction between good and evil. Instead, ethics is viewed more as a way of behavior in society based on principles and moral values, universally accepted as valid.

A certain distinction between the two notions is proposed by Crane and Matten: Morality in terms of norms, values and beliefs inoculated in social processes defines good and evil for an individual or community. Ethics is about studying morality and applying reason to the elucidation of specific rules and principles that determine good and evil in any given situation. These rules and principles are called ethical theories. [3].

Unlike ethics, morality has a significant emotional component. Ethics: involves more detachment, exploration and acceptance of alternative lifestyles. Acceptance of an ethic does not require the abandonment of a private morality, but the consideration of other moral principles and norms as possible alternatives in different contexts. [5]

The mission of ethics is not only to expose the theoretical aspects of morality but also to be a practical, real guide in advising and improving the moral life of society. The role of ethics is to help people and institutions decide what is best to do, what criteria to choose and what their moral motivations are in their actions.

Leaders have existed since ancient times in the history of humanity, though not always their deeds have been beneficial to society. In business, leaders have been instrumental with the growing role of human resources in the organization. A certain distinction between the two notions is proposed by Crane and Matten: Morality in terms of norms, values and beliefs inoculated in social processes defines good and evil for an individual or community. Ethics is about studying morality and applying reason to the elucidation of specific rules and principles that determine good and evil in any given situation. These rules and principles are called ethical theories. [3]

Unlike ethics, morality has a significant emotional component. Ethics: involves more detachment, exploration and acceptance of alternative lifestyles. Acceptance of an ethic does not require the abandonment of a private morality, but the consideration of other moral principles and norms as possible alternatives in different contexts. [5].

The mission of ethics is not only to expose the theoretical aspects of morality but also to be a practical, real guide in advising and improving the moral life of society. The role of ethics is to help people and institutions decide what is best to do, what criteria to choose and what their moral motivations are in their actions.

Leaders have existed since ancient times in the history of humanity, though not always their deeds have been beneficial to society. In business, leaders have been instrumental with the growing role of human resources in the organization.

1.1. Material and method

The research focused on the analysis of the specialized literature and the legislation in the field, realizing a theoretical and practical approach, and on the other hand we considered it appropriate to study the subjective and objective dimensions of the public perception regarding the application of the principles of business ethics; that was the reason to conduct a quantitative research using an oral questionnaire with standardized questions, applied in various multinational companies in Romania.

1.2. Results and Discussions

To begin with, we do not want to talk about the relationship between management, leadership and ethics, but to highlight some aspects of the ethics of the effective leader or otherwise, the leader's ethics, who bases his management activity on principles.

Modern management functions according to four main principles:

- The first principle is of scientific management (centered on concepts as need, economy),
- the second principle is of human relations management (focused on the concept of man as a social being),
- the third principle is of human resources management (which regards the human being as the main resource of social wealth and progress of society) and finally,
- leadership based on principles that add, to the previously mentioned, know-how, effectiveness and goodness. This type of management takes into consideration the fact that human beings are also spiritual beings who need significance, who want the feeling they do something that counts, who need goals to raise them, to make them discover what is their best side.

Leaders who are based on this principle in their activity use a set of well-tested rules. These „are the natural laws and the leading social values that characterize each important society, each responsible civilization, over the centuries" [2].

Most studies show that in organizations, people are the ones who want to be led according to principles. They want their lives to have meaning and purpose. But what are, which are and what is the role of these principles that underlie this style? It's a set of hidden principles, i.e. natural laws of human dimension, that are just as real and unchanged, as is the law of gravity. These principles are an integral part of the structure of any civilized society and underpin each family and institution that has continued to exist and thrived over time. These principles are not invented, they are those laws of the social universe that refer to human relationships and organizations. They are part of human condition, mind and consciousness and have an ethical significance, namely: the degree to which people accept and live in harmony with basic principles such as honesty, equity, justice, integrity, honesty and trust. These principles determine human evolution either to survival and stability, or to disintegration and destruction.

History of mankind indicates that people, civilizations in general, have thrived since they acted in harmony with the right principles. Society's declines and disasters are also violations of fair principles. How many economic disasters, intercultural conflicts, political revolutions, wars, etc. could have been avoided if there had been a greater social devotion to the right principles? Reality has proven that individuals are more efficient and organizations have more power and

credibility than the society they belong to when guided by these verified principles. These principles are not simple and quick solutions to personal and interpersonal problems, but rather constructive principles which, if applied consistently, become habits, behavioral habits that make possible fundamental transformations of individuals' characters, human relationships and organizations. Unlike values that are subjective and internal, the principles are objective and external. Values reflect the beliefs of our socio-cultural environment. Since childhood they become „the glasses" through which we look at the world. We evaluate, set priorities, judge and behave based on the way we see life through these glasses. When people align their personal values to the correct principles, they are freed from their old perceptions or prejudices. Authentic leaders have the ability to pull out their „glasses" and objectively examine the „lens," analyzing how well their values, perceptions, beliefs and behavior align with the right principles. Where there are discrepancies (prejudices, ignorance, mistakes), they operate adjustments to realign themselves to a greater wisdom. Focusing on these principles brings stability and strength to their lives.

Leadership based on principles departs from the truth that there is a universal belief in moral values such as honor, goodness, dignity, mercy, integrity, fairness, helpfulness and patience. Living one's life and leading using opposing principles is unconceivable. Happiness and success cannot be built on dishonesty, deceit, misery, and other such „principles."

True leadership by principles has profound moral grounds. The followers of this kind of management recommend that we should avoid the so-called „seven sins" that anyone could fall into, namely:

2. WEALTH WITHOUT WORK

Today there are professions built on the idea of making fortune without work, gaining a lot of money without paying taxes, benefiting from government programs free of charge, without financial liability etc. The decade 80-90 has been called the „decade of greed", as there have been many fraudulent projects, namely fast-growing fortune plans or speculations promising practitioners that they do not have to work to get rich. The models offered for this purpose are, for example, those types of pyramid organizations (the Ponzi Scheme) that allow the quick enrichment of those managers who make up a subordinate network that brings them financial gains without work.

3. PLEASURE WITHOUT CONSCIOUSNESS

Many people seem to want pleasures in the absence of consciousness or sense of responsibility, abandoning or completely neglecting their partner and children under the pretext of doing what is good for their family. The price of pleasures without consciousness is very high if it is measured in time and money or in terms of reputation or injuries to others, adversely affected by those who just want to be spoiled. It is dangerous to move away from natural law in the absence of consciousness. Consciousness is essentially the place where the passing truths and principles lie, the internal supervisor in the name of the natural law. Its subtle message is: „You've come to the top. Now you are your own law. No need for a consciousness to guide you". [2]

4. KNOWLEDGE WITHOUT CHARACTER

The purely intellectual development without the same development of the character „is as stupid as if you gave a high-powered sport car to a drugged adolescent." [2]. It is necessary to act - in the educational system - so that there is a balance between the development of the intellect and that of the character. There can be a set of common values about which everyone agrees. It is not hard to decide that kindness, honor, dignity, support and integrity, for example, are values that deserve to be defended.

5. BUSINESS WITHOUT MORALITY

Adam Smith is the one who in the „Wealth of Nations" explained how important to the success of our systems is the moral foundation: how to deal with each other, the spirit of goodwill, of serving, of help. If we ignore the moral foundation and allow economic systems to operate without it and without continuous education, there is a risk of occurrence of immoral societies and businesses. [6].

The same writer wrote that every business is a moral attempt in which it can be seen if everyone is behaving right up to the end. Honesty and goodwill in business are the foundation of the free initiative system, called capitalism. The Spirit of the Golden Rule - the one that says all those engaged in a business must win, is a spirit of morality, mutual benefit, honesty towards those involved. Of course, there are business where something is hidden, secret. People have hidden goals; they say rational lies to avoid having to obey natural laws. There are a lot of cases in which the management team have their own business ethics, using excessive justifications and rational explanations. Wealth and power were their main goals, and so they lost contact with reality even within their own organization. They were talking about serving their clients, but they were actually robbing their own employees.

6. SCIENCE WITHOUT HONOR

Although we see very well-trained people, climbing the ladder of scientific success, sometimes this ladder lacks the step of honor and does not lean on the wall on which it should (a normal, natural scientific knowledge and didactic competence accumulation).

7. RELIGION WITHOUT SACRIFICE

This „sin" refers to the idea that sacrifice is needed to help others who are in trouble and even to sacrifice our pride and our prejudices. Unfortunately, many people want religion or at least they seem to, but without any sacrifice. They want more spirituality, but they are not willing to make any sacrifices for it.

8. POLITICS WITHOUT PRINCIPLES

We see politicians who spend big sums of money to create an image, get votes and take up positions. And when they succeed, this leads to a political system that is separated from the natural laws that should govern it. If a sick social void is behind a political will that ignores principles, there is a risk of the emergence of a social entity with deformed values.

Stephen Covey investigated about 500 cases through careful observation of leaders who manage through principles, and thus he highlighted the characteristics of this type of leader:

1. They always learn, read, prepare, are curious and develop new skills and acquirements.
2. The purpose of their lives is to serve others; they think their life is a mission, not a career (like the military one).
3. They radiate positive energy; have a pleasant, happy appearance; they are optimistic, enthusiastic, confident (not frightened, arrogant or paranoid).
4. They believe in the other people; they are not exaggerated against the negative behaviors of critics and human weaknesses, they are not revengeful, they do not label others, they do not take into account prejudices and stereotypes.
5. They lead balanced lives; they perceive their own value as manifested by courage, integrity and the absence of the need to boast, to hint at important people, to draw their power from past assets, titles or achievements; they are simple, direct, open, they do not manipulate; they are not extremists, they do not want everything or nothing, they tune things up; they do not work without measure, they are not religious or political fanatics; they live wisely in the present, they carefully plan the future and flexibly adapt to changing situations; they are honest with themselves, they have the readiness to admit and then forget about mistakes, they are truly happy for the successes of others, they receive praise and criticism without processes of consciousness and without exaggerated reactions.
6. They think life is an adventure; they enjoy life, they have no prejudices, they are likewise brave explorers who make expeditions in unexplored territories that will bring something new; their safety lies in initiative, inventiveness, will, courage, vigor, native intelligence; they refuse to become someone's disciples, they do not complex themselves with personalities, they are flexible, they refuse to become someone's disciples, they have no inferiority complexes in front of personalities.
7. They are synergistic (synergy is the state in which the whole is more than the sum of the parts); they believe in the power and capacities of others and do not feel threatened by those who are better than them, they know how to distinguish between man and problem; they focus on the interests and problems of the person in front of them and not on the disputation of positions; they reach synergic solutions much better than compromise solutions where the parties have to give up little by little.
8. They practice for self-renewal; they participate in a regular exercise program to strengthen their physical and mental health, practice their mind by reading, writing, visualizing and solving problems; they are patient, they listen to others with genuine empathy, they love unconditionally and are responsible for their own lives and decisions; from a spiritual point of view they are concerned with prayers, studying the scripture, practicing meditation and fasting.

In his research, W. Bennis also identified - based on studies conducted on leaders in American corporations - four common competences for these leaders: attention management, meaning management, trust management and personal management.

The management of attention refers to the leader's ability to attract people by creating a vision to communicate to others and then to build it together with them, as an example. The management of significance is the leader's ability to give meaning to goals and directions of action and to communicate these meanings to the members of the team. The management of trust is the ability of leaders to inspire confidence through their actions, respecting the given word, and maintaining the established value system. The personal management represents the ability of self-knowledge and self-understanding, which gives them confidence in themselves. In Bennis's

opinion, in the presence of the leader, people feel more important, more competent, have more confidence in themselves, and increase their sense of team membership by doing their work with more pleasure.[1]

In the second part of the paper we will present the results of the research we underwent in order to better highlight the phenomenon; we determined that the sample considered as representative for our study is 50 people; the subjects were identified by closed questions regarding the variables such as: gender, age, level of knowledge about the main subject, etc. and the interviews were conducted through a face-to-face questionnaire. The questionnaire consists of open and closed questions depending on the subject, and the purpose of the research is to identify the perceptions of the potential leaders of Timisoara regarding the observance / existence of ethical principles in business.

Personal data

As for the respondents, 46% of the respondents were male and 54% were female.

Table 1. Distribution of people by age group

Age group	No of persons	Percent
20-30 years old	12	24
30-40 years old	18	36
40-50 years old	11	22
+ 50 years old	9	18

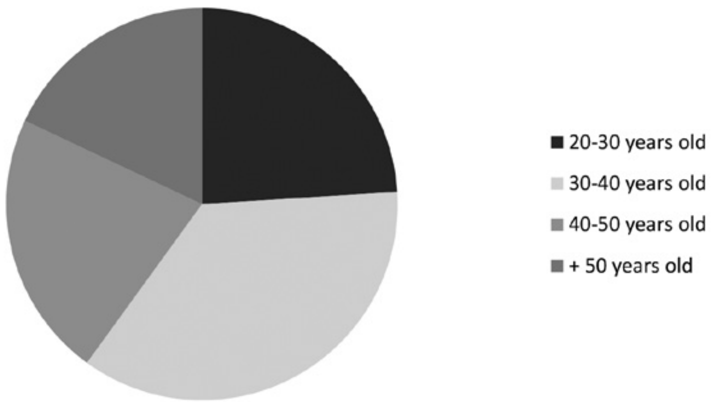


Figure 1. Distribution of people by age group

First question: ***In your work, do you follow a certain ethical code?***

When questioned whether their work is guided by a particular ethical code 77% of the respondents said "YES" and only 23% answered "NO", which is a welcome fact for the whole society, because the promotion of ethical principles in the exercise of professional activities leads to the development of the profession in question, but also to the habits of ethics that will apply in the future regardless of the activity carried out.

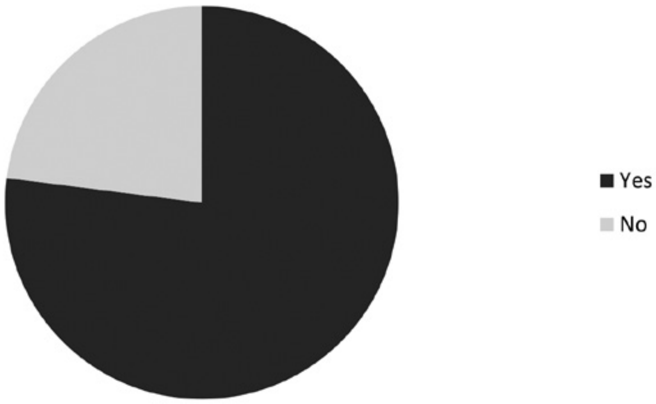


Figure 2. No. of persons which answered Yes or No

Question no. 2: **Do you follow a certain ethical code because:**

a) the institution / company you are working with uses it
b) for your own reasons
c) for other reasons (please specify)

Although, fortunately, 77% of the respondents in their activity are guided by an ethics code, unfortunately 80% of them are subject to this code only because their organization / firm uses it and only 20% are ethical for their own reasons. This result indicates that, unfortunately, those questioned are subject to ethical norms in particular because these norms exist in written form within the organization in which they work. The benefit of the existence of ethical codes in their written form within organizations is to create a practice that at some point can be mastered and transmitted without the need for written or „constrained" application.

Question no. 3: ***Do you know the legislation in your area of activity?***

As far as the legislative knowledge in their field of activity is concerned, all those investigated have responded positively.

Question no. 4: ***What do you understand by business ethics code?***

Respondents were asked to opt for one of the two possible definitions of business ethics. Thus, Business Ethics can be seen as „a study of the moral aspects faced by the business, including activities, institutions, organizations, economic sectors, practices and beliefs"[4]

In a more concrete manner, business ethics can be defined as: „Systematic reflection on the moral consequences of decisions made in business relationships and the potential damage that these decisions can cause to both staff inside the organization and outsiders it „[4], 35 of the respondents opted for the first definition and only 15 respondents opted for the second definition.

Question no 5: ***Do you consider it necessary to develop and implement codes of conduct and business ethics?***

To this question, all respondents argue that it is necessary to develop and implement the Code of Business Ethics.

Question no. 6: ***Which of the following aspects do you consider should be detailed in a business ethics code?***

1. consideration for others,
2. perseverance in keeping ethical standards,
3. creativity in saving resources and protecting the environment,
4. serving customers better,
5. fairness towards suppliers, beneficiaries, employees, associates, community,
6. transparency in communication with business partners.

Of the issues listed to be entered into a business ethic code (multiple answer), respondents had the following options: 22 people: consideration for others; 38 people: perseverance in keeping ethical standards; 25 people: creativity in saving resources and protecting the environment, 35 people serving customers better; 36 people: fairness towards suppliers, beneficiaries, employees, associates, community; 28 people: transparency in communication with business partners.

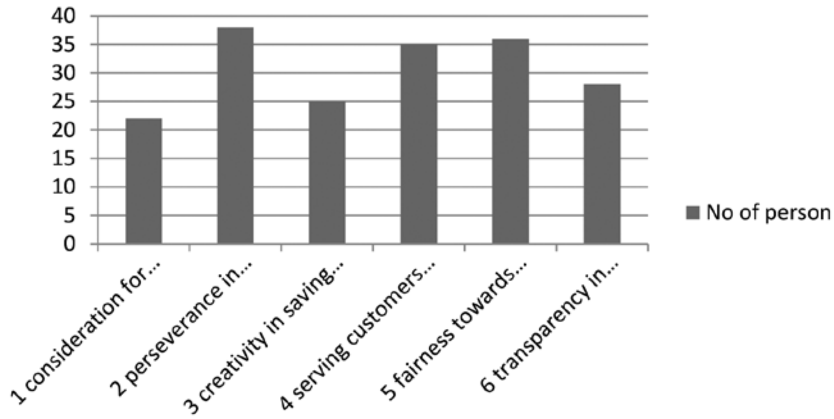


Figure 3. The aspects which should be detailed in a business ethics code

Question no 7: ***What do you think are the moral duties of those involved in the business environment, please enumerate?***

The preferred answers to this question were: Ending the business without bribery, compliance with the law, proper staff remuneration, treating staff with respect and dignity, morality in defrauding the competition.

Question no 8: ***Do you know cases of non-compliance with business ethics? Please specify.***

The answers to this question were as follows: moral harassment, sexual harassment, discrimination on different criteria of employees, violation of moral rights of business partners, using children as a workforce.

Question no 9: ***Do you think that non-compliance with ethical rules in business leads to corruption?***

All respondents believe that non-compliance with ethical standards leads to the occurrence of corruption.

In analyzing the corruption phenomenon in Romania, at least two causes are clearly distinguishable and mutually interdependent. On the one hand, there is a desire for the individual to get rich quickly and effortlessly, by all means, often resorting to the Machiavellian principle „the purpose excuses the means," and on the other hand the restrictions or regulations that wish to be bypassed.

CONCLUSIONS

Modern management functions today according to four main principles: the first principle is the one of scientific management (centered on concepts of need, economy), the second principle is that of human relations management (focused on the concept of man as a social being), the third principle, the human resource management (which regards the human being as the main resource of social wealth and the progress of society), and, ultimately, leadership based on principles that adds to the previously mentioned skills efficiency and goodness.

Leadership based on principles departs from the truth that there is a universal belief in moral values such as honor, goodness, dignity, mercy, integrity, fairness, helpfulness and patience. It is unthinkable to live your life and to lead on the basis of opposite principles. Happiness and success cannot be built on dishonesty, deceit, misery, and other such „principles."

True leadership by principles has profound moral grounds. The followers of this type of management recommend that we avoid the so-called „seven sins" in which anyone could fall: wealth without work, pleasure without consciousness, knowledge without character, business without morality, science without honor, religion without sacrifice, politics without principles.

In the second part of the research we tried to highlight the phenomenon studied by applying a face-to-face questionnaire. We notice that 77% of the respondents are guided by an ethics code, 80% of them are subject to this code just because the organization/firm in which they work uses it and only 20% are subject to ethical rules for their own reasons. What the study shows us is that in organizations people want to be led by principles transposed into written rules. The issues that need to be detailed in an ethics code are as follows: consideration for others; perseverance in keeping ethical standards; creativity in saving resources and protecting the environment; serving customers better; fairness towards suppliers, beneficiaries, employees, associates, community; transparency in communication with business partners.

Failure to comply with ethical standards leads to the occurrence of corruption. In analyzing the corruption phenomenon in Romania, at least two causes are clearly distinguishable and mutually interrelated. On the one hand, there is a desire for the individual to get rich quickly and effortlessly, by all means, often resorting to the Machiavellian principle „the purpose excuses the means," and on the other hand the restrictions or regulations that wish to be bypassed.

REFERENCES

[1] Bennis, W. *Why Leaders can`t lead,* Published by Soundview Executive Book Summaries, 10 La Crue Avenue, Concordville, Pennsylvania 19331 USA, p. 3

[2] Covey, S. (2001) *Etica liderului eficient sau conducerea bazată pe principi*i, Bucuresti, Editura Alfa, p. 86

[3] Crane, A.; Matten, D. (2004) *Business Ethics. A European Perspective*, Oxford University Press, p. 11

[4] Ionescu, Gh., Bibu Nicolae, Munteanu Valentin, (2006) *Etica în afaceri,* Ed. Universitatii de Vest, Timisoara, p. 42

[5] 4 Pop Cohut, Ioana Cohut, Ioana, (2004) *Etica în afaceri,* Ed. Universitătii din Oradea, Oradea, p. 5

[6] Smith Adam, (2011) *Avutia Natiunilor*, Ed. Pupbica, Bucuresti p. 210

[7] DEX (1998) *Academia Română, Institutul de lingvistică „Iorgu Iordan*" Ed. Univers enciclopedic, Bucuresti

SUCCESSION OF DIGITAL ACCOUNTS

Katerina Dulčić[1]

DOI: https://doi.org/10.31410/EMAN.2019.319

Abstract: *Author is examining the consequences of the death of the contractor on different digital accounts. Methodology that is going to be used is primary analysis of actual private and legal regulations, and their comparison.*

First, there are different types of digital accounts, and they should be managed differently. Strictly personal accounts should be considered in one way, and professional accounts should follow the succession of the business. The social network sites offer to the user to choose the faith of their account upon their death. Mostly, it is possible to assign one person to manage the account after death, or inactivity. Social network accounts contain a wide list of services, and contain a wide spectrum of information about the user. There are copyrights on photos and texts, there are pieces of personal information and personality rights in messages and private notes.

Law provides the rules for heritage of copyrights and intellectual property. Those provide to its holder the possibility to decide on their fate upon his or her death, but there are also some limits.

The author compares the provisions offered by social network sites, and other digital accounts' contracts with each other. Also, it is analyzed whether the decisions made in digital form meet the requirements of legal form of the will.

Recent case in Germany, before Federal Court in Berlin, no. III-ZR-183/17, of 12th July 2018, compared the data on Facebook to diaries and memoirs and ordered the provider to give full access to the legal heirs. In this case, the deceased was a 15 years old child, and there are usually no secrets that would be morally unacceptable to be revealed to the parents. But in case of a death of an adult person, whose legal heir is the child, the question is whether the parent wants own child to browse personal messages. Also, there were parents that continued to use the account of the dead child. In that case, the situation is clear, because that is false presentation, and all social networks have that as a valid reason to block access.

Professional accounts usually have protocols on how to access the account in case of illness or other leaves, so they are applied in case of death. The problem is to determine whether a certain account is personal of professional.

The questions that rise are whether it is moral to access personal data of the deceased relative, or should they be lost in digital universe.

This article provides the suggested solutions for preventive measures for the use of professional accounts, to avoid future legal battles with heirs, by analyzing the actual state of possible provisions.

Keywords: *digital accounts, succession, property.*

1 Polytechnic Nikola Tesla Gospić, Bana Ivana Karlovića 16, 53 000 Gospić, Croatia

1. INTRODUCTION

Nowadays, the majority of population that has access to the Internet has one, and usually more, digital accounts. Even if it is hard to talk about death, in civil law it is defined as improper necessary condition: because there is no uncertainty. In legal textbooks its example is death [1]: *dies certus an incertus quando.* So, we should consider what happens with on line accounts upon their user death.

First of all, not all accounts can be considered equally. The content and its purpose are different for various types of accounts, and also how they were formed. It should be looked differently whether it is an account that was formed to promote or run a business activity, or it was formed just as private and personal account.

2. METHODOLOGY

First, some of the major digital account offers for the case of the death or nonactivity are going to be analyzed. It is going to be examined what they offer, and what implications their offer has to the content of the account. Then the requirements of the will are going to be explained and it is going to be examined whether the on-line forms can meet such requirements.

Then the case of the German court is going to be explained, and it is going to be analyzed the real applicability of the previous findings.

3. RESULTS

3.1. On-line accounts and their solutions in case of death

The short form of the article doesn't allow to examine many digital accounts, just some major ones.

The wide spread social network Facebook offers to its users the possibility to upload materials protected by the copyright, like photos, videos and texts. But also provides means for private communications. These intellectual properties are protected by copyright laws, but also privacy laws.

Within its "General Account settings", there is the option "Manage account" that provides means to delete own account, but also the options for "account's legacy". Every user has the right to name a friend that gets the right and opportunity to manage the legacy account. She or he has these authorities: manage who can see or post tributes to the late user, delete tribute posts, change who can see tribute posts that the late user is tagged in, remove tags of former user that someone else has posted, pin a tribute post on late friend's profile, respond to new friend requests, update profile picture and cover photo, but they are not able to post as late user, and also, they are not able to see the messages. [2]

Google account, under "Data and personalization settings", offers to "Make a plan for your account". Differently from Facebook, they are a bit euphemized. They don't use the words like legacy and death, but they are considering the inactivity of the account. It's a good solution for the Google, because they can legally delete inactive accounts. Those happen; In cases people

forget the password, in cases when people create incognito accounts, and stop using them. Google is obliged to keep the disk space.

In description it is declared to be in cases of death or accident. As it literally declares: "Take control of what happens to your Google Account if you're unexpectedly unable to use your Google Account, such as in the event of an accident or death. Decide when Google should consider your account to be inactive and what we do with your data afterwards. You can share it with someone you trust or ask Google to delete it."

They are offering to send all the data to a person designed by the owner of the account, or just delete it. [3]

Instagram offers any user to inform them about death of any user, and only to the close relatives, they offer the possibility to request to delete the account. The account can be memorialized or removed. Sole inactivity is not sufficient for Instagram to take actions, but they require a proof of death. For removing an account, they request further more proofs: the deceased person's birth certificate, the deceased person's death certificate and the proof of authority under local law that you are the lawful representative of the deceased person, or his/her estate. But they never provide username and password, reasonably explaining it as it states: "Please keep in mind that we can't provide login information for a memorialized account. It's always against our policies for someone to log into another person's account."

After death the only action another person can obtain is for the account to be removed, but protecting the copyright, no one can modify the content. [4]

3.2. The form of the will

The will always had a very strict form. Before people were literate, it required presence of two witnesses or even the priest. [5]

The will is a strictly formal act, and it's permitted forms are defined by strict rules of the law. [6] Testamentary formalities are very strict in many countries, and in all EU countries. [7] The only liberal countries, that accept informal will are some Islamic countries. [8]

Electronic wills are not regulated within EU, and when they will be, they are, probably, going to require advanced digital signature in accordance with Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. And the possibility to limit the validity of electronic documents is provided by the article 9, comma 2 of the Directive on electronic commerce. [9]

The strict formality of the testament is a logic consequence of its moment of validity. When the will is applied, its author is dead, and doesn't have the ability to confirm, to deny, or to interpret its content.

3.3. The German court decision

Recent case in Germany, before Federal Court in Berlin (Bundesgerichtshof) no. III ZR 183/17. of 12th July 2018, compared the data on Facebook to diaries and memoirs and ordered the pro-

vider to give full access to the legal heirs. In this case the deceased was a 15 years old child, and there are usually no secrets that wouldn't be morally unacceptable to be revealed to the parents. But in case of a death of an adult person, whose legal hair is the child, the question is whether the parent wants own child to browse personal massages.

The Court determined that the heirs of a Facebook user who is deceased ("User") shall have the right to access the User's Facebook account. This results from the general inheritance law provisions of the German Civil Code (Bürgerliches Gesetzbuch – "BGB"), pursuant to which the User's contract with Facebook is transferred by law to the User's heirs, in particular the fundamental German civil law principle of 'universal succession' under Section 1922(1) BGB. In practice, this means that the situation is similar to the one regarding diaries or private letters, the rights to which pass to heirs under Section 1922(1) BGB.

Facebook's contractual obligations to maintain confidentiality are not in conflict with the heirs' right to access: The Court focusses on the relevant user account as a contract rather than on the relevant User. In the view of the Court, other Facebook users who have corresponded with the User cannot reasonably expect that their communications will be sent to a specific individual, i.e. the User, only. Rather, they can only demand that Facebook makes their correspondence available solely to the relevant user account to which their communications were directed. Furthermore, other Facebook users cannot reasonably expect that their communications will not be made accessible to third parties.

The BGH stresses that the statutory requirement to protect the secrecy of telecommunications, as set out in Section 88 of the German Telecommunications Act (Telekommunikationsgesetz – TKG), is not in conflict with the heirs' right to demand access. The reason is that the User's heirs do not qualify as third parties within the meaning of the secrecy of telecommunications.

Finally, on the basis that the GDPR does not apply to deceased persons, the Court clarifies that the GDPR does not prohibit the heirs' right to access the User's Facebook account. The dead are not protected regarding their privacy. Furthermore, the Court takes the view that the transfer of personal data concerning other Facebook users who have corresponded with the User can be legitimized by both Article 6(1)(b) GDPR ("necessary for the performance of a contract") and Article 6(1)(f) GDPR ("legitimate interests"). [10]

This Court decision opens the request of any successor to access the deceased account, whether it was a child, parent, sibling or spouse.

4. DISCUSSION

The court ruling as stated above are opening a new perspective on digital accounts. The expressed desires of the late person can be overruled. The form of the in-account expression of after death desires, does not meet the testamentary formalities requirements. It can only be a guide line for successor, just a moral obligation, but not legal. Even if a person declared to want all her or his content of Google account to be sent to a friend, the legal heir could get a court request to obtain it. There is Instagram provision that blocks anybody, except the original user, to modify posts is in accordance with the copyright laws. [11]

This simplifies the business accounts. If an account is considered as a contract, then the person that pays for it, can legally obtain access to it. The majority of promotional accounts require payment, therefore, the legal entity owing the account used for paying, can request full access to the account. It also sets the rules for all other contracts connected to the digital account, that have to be transferred to the heirs or successor by other legal titles.

5. CONCLUSION

This is a new field that opens. The users of digital accounts are mostly young (or youngish) people, that do not think about death. They don't have wills, and probably, even if they had them, the provisions on one's digital accounts wouldn't be included. So, for now, we are considering only legal succession, not testamentary succession.

It would be necessary to raise the awareness on this problem among digital accounts users and make them prepare valid decisions. In case that a deceased person states in a valid will that a certain person, and that person only can access certain account, the courts wouldn't be allowed to grant access to general hairs.

The problem is that users do not consider the use of a cell phone, social network, or other digital accounts as a contract, because the majority are free, or they are supported for by third parties, advertisers. Therefore, as it is logical for heirs to discuss the succession of a mortgage, they do not discus in front of the judge, the access to digital accounts of the late relative. The majority have someone in the family that knows the computer password, and from there they access all accounts, illegally! It can be macabre to see comments from a late person in reality written by a relative with access to the late person computer or cell phone. For now, the majority of problems rise when parents want to access the late child account, but many other problems are going to rise when children are going to access the late parent account.

REFERENCES

[1] Klarić, P., Vedriš, M.: Građansko pravo, Opći dio, stvarno pravo, obvezno i nasljedno pravo, Zagreb, Narodne novine d.d., 2009. (p. 117)
[2] https://www.facebook.com/settings?tab=account&section=account_management&view, 10.2.2019.
[3] https://myaccount.google.com/inactive?utm_source=google-account&utm_medium=web&continue=https%3A%2F%2Fmyaccount.google.com%2Fdata-and-personalization, 10.2.2019.
[4] https://help.instagram.com/264154560391256?helpref=related&ref=related, 12.2.2019.
[5] Kotlyar, I.: The Evolution of the Scots Law and Practice of Succession: 1300-2000; in di Renzo Villata, M.G. (ed.): Succession Law, Practice and Society in Europe across the Centuries, Cham, Springer, 2018 (p. 178.)
[6] Klarić, P., Vedriš, M.: Građansko pravo, Opći dio, stvarno pravo, obvezno i nasljedno pravo, Zagreb, Narodne novine d.d., 2009. (pp. 736-737)
[7] Reid, K. G.C.; De Waal, M.; Zimmermann, R. (ed.): Comparative Succession Law, Volume I, Testamentary Formalities, New York, Oxford University Press, 2011.
[8] Yassary, N.: Testamentary Formalities in Islamic Law and their Reception in the Modern Laws of Islamic Countries, in: Reid, K. G.C.; De Waal, M.; Zimmermann, R. (ed.):

Comparative Succession Law, Volume I, Testamentary Formalities, New York, Oxford University Press, 2011.
[9] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)
[10] http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=b-gh&Art=pm&Datum=2018&Sort=3&nr=85390&pos=0&anz=115, 7.2.2019.
[11] Burrell, R.; Coleman, A.: Copyright Exceptions: The Digital Impact, Cambridge, Cambridge University Press, 2005, pp. 64-67.

AGENCY PROBLEMS AND DEBT FINANCING

Marina Klačmer Čalopa[1]
Karolina Kokot[2]
Ivana Đunđek Kokotec[3]

DOI: https://doi.org/10.31410/EMAN.2019.325

Abstract: *The main objective of this paper is to examine correlation between agency costs measured by identified approximation of variables and debt financing as one of the corporate governance mechanisms for reducing these costs. In a modern corporation where ownership is separated from management, many benefits are viewed primarily through an increasing efficiency. The issue of the separation of ownership and management is related to potential conflict between principals (stakeholders) and agents (managers). Theoretically possible solution to the agency problem is defined through the agency theory. The most significant problem are agency costs. Agency costs do not have a directly quantifiable value, therefore the approximation of measures such as asset turnover ratio and operating expense ratio (company's operating expenses divided by its revenues) will be used in this research paper. According to the previous empirical studies, between asset turnover ratio and debt financing positive correlation was determined, while negative correlation was determent between operating expense ratio and debt financing. This research was conducted on Croatian companies whose shares have been listed on the Zagreb Stock Exchange continuously from January 2009 to December 2017. In the analysis, from a total of 154 companies that shares have been listed on the Zagreb Stock Exchange, 31 most actively traded shares measured by the average monthly trading rank in the observed period were taken. Results obtained in this research indicate that debt financing is significant corporate governance mechanism for reducing agency costs where the direction obtained from the correlation is in line with the theoretical expectation.*

Keywords: *Agency costs, Corporate Governance, Capital market, Financial leverage, Debt structure.*

1. INTRODUCTION

Jensen and Meckling [1] define principal-agent relationship as „*a contract under which one or more persons (the principal) engage another person (the agent) to perform some service on their behalf*“. Both parties in principal-agent relationship want to maximize utility, and this can cause contradicted interests. The principal and the agent will incur monitoring and bonding costs in mainly agency relationships. These costs do not exclude entirely deviation between the agent's decisions and those decisions which would maximize the welfare of the principal. [1]

Cerović et al. [2] discussed establishing the principal-agent relationship and if it appears asymmetry of information, moral hazard, and incorrect choice, agency costs will incur. Agency costs [2] are all tangible and intangible assets which agent uses in the control of agent to ensure the optimal capital exploitation. Agency costs include costs paid by owner, incur it to prevent the occurrence of the moral hazard on the agent's side. [2]

1 University of Zagreb, Faculty of Organization and Informatics, Pavlinska 2, 42 000 Varaždin, Croatia
2 University of Zagreb, Faculty of Organization and Informatics, Pavlinska 2, 42 000 Varaždin, Croatia
3 University of Zagreb, Faculty of Organization and Informatics, Pavlinska 2, 42 000 Varaždin, Croatia

2. EFFECTS OF DEPT FINANCING ON AGENCY COSTS

Jensen and Meckling [1] have shaped the ownership theory of corporation to define the effect of debt and share capital on agency costs. The option of optimal capital structure is the possible solution for reducing agency costs. The theory defines that ratio of debt and assets decrease agency costs and increase the company value through the motivation of management to align their interest with the principal's interest. [2] Florackis and Ozkan argue that the principal-agent problem is related to cash flow and asymmetric information. Debt financing decreases the agency problem and reduces agency costs. Debt financing results with signals which reduce asymmetric information between agent and principal and information costs. [3]

In their empirical research Junwei et al. [4] defined that companies with lower total asset turnover or characteristic of ineffective management have expected higher level agency costs. They accent the positive correlation between debt financing as a corporative mechanism and total asset turnover. The relation between these variables [4] indicates that increasing of debt financing results with decreasing of agency costs. Cerović et al. [2] have done research about the impact of ownership and capital structure on agency costs. They validate the hypothesis that the correlation between agency costs and financial leverage are negative in line with the optimum level of debt.

McKnight and Weir [5] identify three measures for the approximation of agency costs: total asset turnover; cash flow interaction and the number of acquisitions. Total asset turnover [5] indicates the level of efficiency of assets used by management. Higher coefficient indicates a more significant level of income, generated with assets. This measure is a useful indicator of agency costs, but it has a few disadvantages: [5] income is not a synonym for the wealth of shareholder, cash flow does not have to be distributed to shareholders, and variability of productivity within the industry.

In their research study on Relationship Between Agency Costs and Governance Mechanisms: Evidence from China's A-share Listed Companies Junwei et al. [4] indicated four measures for the approximation of agency costs in companies: total asset turnover, the ratio of sales costs and management, free cash flow and assets liquidity ratio. Panda and Leepsa [6] define as the first measure of agency costs the total assets turnover, which explains how efficiently the assets are utilized by the management and better utilization indicates low agency cost. The second measure expense ratio describes the effectiveness of the management in controlling the operating expenses, and a lower expense ratio is desirable. [6] Ming Shao and Yaxin Wang defined the same measure of agency costs. The frequently used indicators for agency cost are: [7] asset turnover ratio and operating expense ratio. Zhou et al. [8] used also total assets turnover in their research. Zhang and Li [9] argue that the higher level of debt decrease the agency costs and increase the value of companies. They claim that higher financial leverage decreases the agency costs according to the monitoring by debt provider.

Researches described above and financial indicators used for approximation of agency costs have been postulate for analysis in this paper – the effect of debt on agency costs.

3. RESEARCH METHODOLOGY

The aim of these research was to examine the effect of level of debt financing (coefficient of debt) on level of agency costs according to existing results of the research conducted by Jensen and Meckling [1], Cerović et al. [2], Florackis and Ozkan, [3] Junwei et al. [4] Zhan and Li [9]. Mentioned authors argue that a higher level of debt financing in total assets is decreasing the level of agency costs, according to the assumption of optimal debt level.

Agency costs are not directly measurable, and for defined level of costs approximation measures are used. Therefore, in this research we used approximation measures which represent financial indicators defined by Cerović et al. [2], Junwei et al. [4] McKnight and Weir [5] Zhan and Li [6] Shao and Wang [7] and Zhou et al. [8]. Specifically, total assets turnover and operating expense ratio were used in this research. In order to examine the expected theoretical correlations of the above-mentioned approximation measures with the coefficient of debt, a correlation analysis was used where total assets turnover and operating expense ratio represent dependent variables, and debt ratio represent the independent variable.

The research was conducted on Croatian companies whose shares have been listed on the Zagreb Stock Exchange continuously from January 2009 to December 2017. Sample include companies in all categories of economic activities according to National classification of economic activities, excluding the companies in the Sections K: Financial and insurance activities. Thus, the analysis covers the following sectors: Agriculture, forestry and fishing; Manufacturing; Construction; Wholesale and retail trade; Transportation and storage; Accommodation and food service activities; Information and communication; Real estate activities; Professional, scientific and technical activities; Arts, entertainment and recreation. In the further analysis, from a total of 154 companies that meet criteria these companies' shares have been listed on the Zagreb Stock Exchange, 31 most liquid shares measured by the average monthly trading rank in the observed period were taken. Included companies in the research are: Ericsson Nikola Tesla, Kraš, Hrvatski Telekom, Viro Tvornica Šećera, Podravka, Institut IGH, Atlantska Plovidba, Uljanik, Dalekovod, Viadukt, Končar-Elektroindustrija, Valamar Riviera, Ledo, Luka Rijeka, Ingra, Tehnika, Ina - Industrija Nafte, Hup-Zagreb, Ad Plastik, Jadroplov, Đuro Đaković Grupa, Janaf, Petrokemija, Liburnia Riviera Hoteli, Atlantic Grupa, Zvijezda, Belje, Jamnica, Adris Grupa, Arena Hospitality Group, Luka Ploče. Additionally, the companies in the sample were selected according to the assumption that management of these companies is confronted with significantly enhanced challenges, then management which companies' shares have not been listed on the Zagreb Stock Exchange; According to this assumption, in those companies, principal-agent relationship is emphasized.

The conducted research includes the analysis the company's basic financial statements (balance sheet and profit and loss statement) available on companies' official website, official website of Zagreb stock exchange (ZSE) and the official data from the Statistical Base and the Public Announcement Report of the Financial Agency (FINA). Calculation of financial indicators was done according to data in unconsolidated financial statement companies for the period 2009 to 2017.

Based on defined aim of these research, several research questions have been analyzed:

- **RQ 1:** Higher total assets turnover indicates a lower level of agency costs.
- **RQ 2:** Lower level of operating expense ratio indicates a lower level of agency costs.
- **RQ 3:** There is a positive linear correlation between total assets turnover and debt ratio.
- **RG 4:** There is a negative linear correlation between the operating expense ratio and debt ratio.

Within the framework researching of the effect of level of debt financing (coefficient of debt) on level of agency costs, agency costs level was measured using financing indicators, total assets turnover and operating expense ratio, defined as respectively measures for the approximation of those costs. In the analysis the authors used financial indicators described in Table 1.

	Financial indicators	
Dependent variable	Total assets turnover	Total annual income/total assets[1]
Dependent variable	Operating expense ratio (OETS)	operating expenses [2] / gross revenues
Independent variable	Debt ratio (DTAR)	Total debt/total assets

Table 9: Financial indicators

According to the literature, higher total assets turnover indicates a lower level of agency costs. Therefore, the ability of management to acquire more income with available assets indicates a lower level of agency costs [4]. The figure 1 represented movement average for total assets turnover indicator for the observed sample, and the average for three companies with the top level of total assets turnover for the defined period. Results indicate that the average of the best companies through these indicators varies from the total average, which implies lower agency costs in those 3 companies.

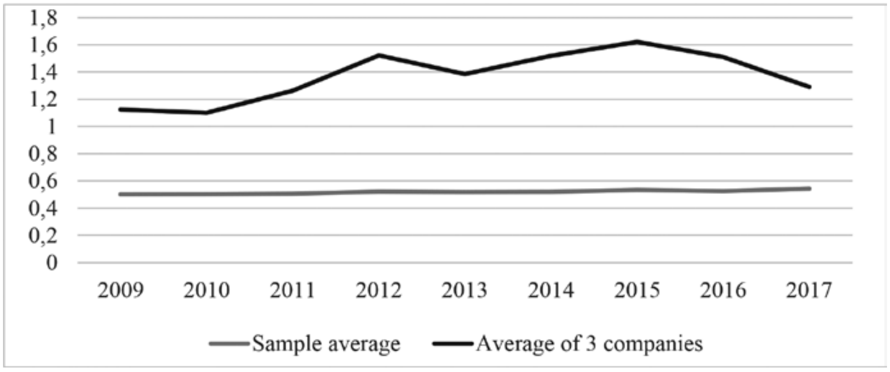


Figure 1: Average for total assets turnover indicator
[Author's calculations, an extract from software package Excel]

The results of the existing research support second research question, particularly the lower level of operating expense ratio indicates a lower level of agency costs. [6] The figure 2 represented movement average for operating expense ratio indicator for the observed sample, and the average for three companies with the top level of operating expense ratio for a defined period. Results indicate that the average of the best companies through these indicators varies from the total average, what implies to lower agency costs in those 3 companies.

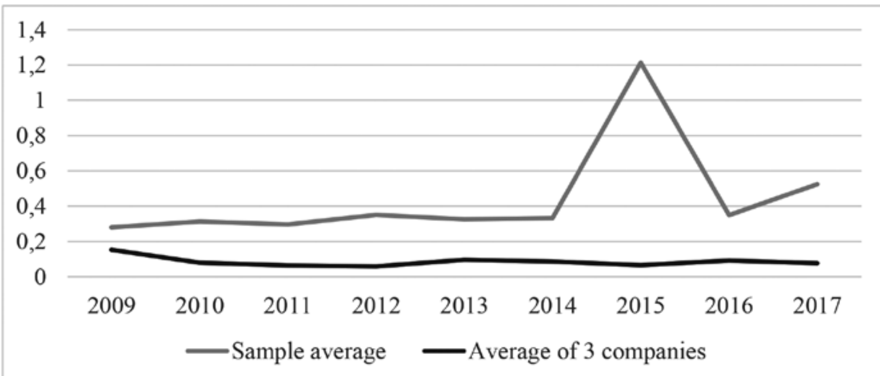


Figure 2: Average for operating expense ratio
[Author's calculations, an extract from software package Excel]

In order to examine the linear relationship between debt financing as one of the important corporate governance mechanisms for reducing agency cost measured by debt ratio, and total assets turnover and operating expense ratio Pearson's correlation coefficient was used.

At first, an empirical correlation was tested using the Pearson's correlation coefficient between total assets turnover as dependent variable and debt ratio as independent variable. The Pearson's correlation coefficient (0, 434954913) indicated medium level of positive linear correlation of the analyzed variables. Based on obtained results we can conclude that the higher debt ratio results with a lower level of agency costs. Furthermore, correlation between the operating expense as a dependent variable ratio and debt ratio as an independent variable was also tested using the Pearson's correlation coefficient. The calculated Pearson's correlation coefficient (-0, 301243215) indicated medium level of negative linear correlation. That result indicated that the higher debt ratio results in a lower level of agency costs because increasing the debt ratio decreases the operating expense. The obtained results are in line with the theoretical assumption.

4. CONCLUSION AND LIMITATIONS

In the modern corporation, separation of ownership and management is impossible to avoid. The principal-agent relationship is complex and it has some negative consequences such as agency costs. Various mechanisms of corporate governance have a different impact on agency costs. Actions of the agent, which are not in line with the aim of principal, might have a negative impact on the value of the corporation.

Analysis indicates that different companies have a different level of agency costs. According to the numerous authors, there are several financial indicators that can approximate the level of agency costs. Authors of this paper used two financial indicators, total assets turnover and operating expense ratio. Analysis affirms theoretical assumptions of the level of agency costs and debt financing in observed corporations. Results obtained in this research indicate that debt financing is a significant corporate governance mechanism for reducing agency costs where the obtained direction of their correlation is in line with the theoretical expectation.

The biggest limitation of these research is inability to calculate the absolute amounts of agency costs. The financial indicators used in this analysis are only approximation and neither of these indicators provides possibility of calculating unit cost of agency costs. Also, the limitations are related to the theoretical restrictions of the debt share, i.e. in fact there is an optimal level of debt after which different research results can be expected. Therefore, the debt share can't increase up to one hundred percent because it would cause other consequences that would affect company's business. The results of this research can only be observed in the context of the Croatian capital market whose characteristics may differ from other markets, especially the capital markets of developed countries.

REFERENCES

[1] Jensen, M. C., & Meckling, W. H. (1976). *Theory of the firm: Managerial behavior, agency costs and ownership structure*. Journal of financial economics, *3*(4), 305-360.

[2] Cerović, L., Zaninović, V., & Dukić, N. (2011). *Utjecaj vlasničke i kapitalne strukture na kretanje agencijskih troškova: studija slučaja vlasnički nisko koncentriranih poduzeća Republike Hrvatske*. Ekonomska misao i praksa, (2), 419-442.

[3] Florackis, C. (2008). *Agency costs and corporate governance mechanisms: evidence for UK firms*. International Journal of Managerial Finance, *4*(1), 37-59.

[4] Junwei, W., Guiqin, L., & Ping, H. (2011). *Study on the Relationship between Agency Costs and Governance Mechanisms: Evidence from China's A-share Listed Companies*. In M&D Forum Studies (pp. 258-271).

[5] McKnight, P. J., & Weir, C. (2009). *Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis*. The quarterly review of economics and finance, *49*(2), 139-158.

[6] Panda, B., & Leepsa, N. M. (2017). *Agency theory: Review of theory and evidence on problems and perspectives. Indian Journal of Corporate Governance, 10*(1), 74-95.

[7] Shao, M., & Wang, Y. (2018). *A Review on Agency Cost in China*. Open Journal of Business and Management, *6*(02), 225.

[8] Zhou, Z., Zhou, H., Peng, D., Chen, X. H., & Li, S. H. (2018). *Carbon Disclosure, Financial Transparency, and Agency Cost: Evidence from Chinese Manufacturing Listed Companies*. Emerging Markets Finance and Trade, 54(12), 2669-2686.

[9] Zhang, H., & Li, S. (2008). *The impact of capital structure on agency costs: Evidence from UK public companies* (Doctoral dissertation, Queens university of technology).

[10] Official web site of the Zagreb Stock Exchange available at http://zse.hr/

FINANCIAL INTEGRATION OF THE NEW MEMBER STATES – CASE STUDY OF EU'S REGULATORY INITIATIVE ON FINANCIAL TECHNOLOGIES

Ivana Bajakić[1]

DOI: https://doi.org/10.31410/EMAN.2019.331

Abstract: *New technologies are changing at a very fast course and reshaping the financial system significantly. FinTech is a relatively new term used for technology enabled innovation in the area of financial services and includes variety of products, applications, models and processes. FinTech provides new opportunities both for private sector and its consumers, increasing efficiency and integration of financial systems across Europe and worldwide.*

The above-mentioned trends have motivated the European Commission to initiate actions in order to promote technology enabled innovation in the area of financial services. The goal is to empower all market players in promoting new technologies such as blockchain and artificial intelligence while controlling risks and protecting consumers.

Based on the analysis of secondary data, this paper aims, first, to discuss the effects these measures will have on the financial markets across Europe, especially with regard to better regulation. Secondly, the objective is to research financial integration for the New Member States' financial markets with regard to new technologies and the access they provide for financial services and consequently efficiency improvement of the financial system.

Keywords: *Financial technologies, FinTech, Capital markets union, financial integration, New Member States*

1. INTRODUCTION

Current trends on the financial markets could be summarized as follows: financial products and services are based on information. Today, many financial transactions can be performed without physical interactions. IT costs and investments are uppermost in financial sector companies. FinTech companies are fundamentally changing financial systems and redefining ways in which financial services are being performed. Digitalization has changed consumer behaviour from physical interaction to online self-services, which has reduced significantly number of bank branches. Traditional financial institutions are outsourcing data processing and storage to cloud service providers, changing financial ecosystem. Regulatory authorities are engaging in new collaborative approaches towards FinTech companies to facilitate innovations (Gabor and Brooks, 2017; Arner, Barberis, Buckley, 2016; Puschmann, 2017). From 2010 to 2016, there has been more than $50 billion invested in almost 2,500 companies worldwide (Accenture, 2016). Just the UK's FinTech sector generates approximately £20 billion in revenues annually (Financial Conduct Authority, 2015, p.5).

FinTech is a term used to address technological innovations in financial sector. According to Schueffel (2106), there is still no consensus what the term Fintech means. His analysis of definitions in scientific literature resulted in a broad definition of the term FinTech as: "a new financial

[1] Faculty of Law, University of Zagreb, Trg Republike Hrvatske 14, 10 000 Zagreb, Croatia

industry that applies technology to improve financial activities" (Ibid., p. 15). The European Commission uses the definition of the Financial Stability Board (2019) which defines FinTech as "a technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services".

For decades now, there has been many different technological innovations with regard to financial services, for example automation in banking via automated teller machine (ATM), online banking and brokerage, etc. (Arner, Barberis, Buckley, 2016, p. 1274-1283). However, over the last decade, FinTech businesses have offered disruptive innovations, which are dramatically changing, and reorganizing the financial system, its institutions and the ways in which business is conducted. Puschmann (2017, p. 70-71) classifies phases of changes over the last decade as: (i) internal digitalization, in which the focus was on internal processes (e.g. payment transactions, portfolio management), (ii) provider-oriented digitalization, which provided outsourcing of business processes, and (iii) customer-oriented digitalization, which brought new channels of lending, such as peer-to-peer business models.

FinTech is making a revolution in the financial systems, democratizing financial services and becoming more consumer oriented. At the same time, it poses certain challenges, i.e. cyber and data related risks, which could have a far-reaching effect on consumers, investors and markets. The European Commission is keen to support FinTech operations across the EU, to provide scaling for FinTech companies, facilitate cross border investments and improve financial integration across European financial markets.

The purpose of this paper is to discuss the effects European Commission's measures could have on the financial markets across Europe, with special emphasis on regulatory issues and the New Member States, i.e. their financial markets with regard to new technologies and the access they provide for financial services and consequently efficiency and integration of financial systems. Following short introduction, the paper provides an overview of the Capital Markets Union and the FinTech Action Plan while the third part discusses new ways for governing FinTech. The fourth part examines potentials that FinTech innovations could have for New Member States' financial markets. Chapter five summarizes the main conclusions.

2. EU POLICIES FOR FINANCIAL SERVICES: THE CAPITAL MARKETS UNION AND THE FINTECH ACTION PLAN

The Capital Markets Union (CMU) was a term constructed by the President of the European Commission Jean-Claude Juncker as a plan for his presidency from 2014 to 2019 with a goal to boost investments and economic growth and create new jobs. His agenda included ten policy areas, one of them being a policy for deeper and fairer internal market with a strengthened industrial base. The attention was again on more integration in the area of the internal market. "Over time, I believe we should complement the new European rules for banks with a Capital Markets Union. To improve the financing of our economy, we should further develop and integrate capital markets. This would cut the cost of raising capital, notably for SMEs, and help reduce our very high dependence on bank funding. This would also increase the attractiveness of Europe as a place to invest" (Juncker, 2014, p. 8).

Free movement of capital is a cornerstone of the European single market and therefore has been a key priority for decades. Single market stands for significant market size and is very relevant factor for European competitiveness position with regard to other advanced economies of the world such as the USA for example. Integrated financial markets across Europe can create many benefits for all market participants: consumers, investors and companies by reducing the cost of raising capital and consequently increasing its allocation efficiency.

FinTech falls within a number of complementary regulatory and/or policy initiatives, namely, financial services and digital single market, i.e. Commission's Digital Single Market Strategy, EU's cybersecurity strategy, eIDAS Regulation, Consumers Financial Services Action Plan and the Capital Markets Union (European Commission, 2018, p. 2). FinTech was included in the Capital Markets Union's policy framework in 2017 Mid-Term Review, affirming its potentials in the capital markets areas such as: equity issuance, corporate governance, asset management, investment intermediation, product distribution, securities custody services, etc. (European Commission, 2017, p. 12-13).

Both the European Parliament and the European Council have stressed that a support to FinTech initiatives is a priority. "To successfully build a Digital Europe, the EU needs in particular … a sense of urgency to address emerging trends: this includes issues such as artificial intelligence and blockchain technologies, while at the same time ensuring a high level of data protection, digital rights and ethical standards… put forward the necessary initiatives for strengthening the framework conditions with a view to enable the EU to explore new markets through risk-based radical innovations and to reaffirm the leading role of its industry" (European Council, 2017, p.5). The European Parliament's Report on a Fintech (2017, p.21): "Urges the Commission, nonetheless, to shape its legislative measures in a manner leaving sufficient flexibility for firms to operate and arrange finance, as well as stimulating partnerships between banks and FinTech companies in the area of lending" and "calls on the Commission to identify and remove existing barriers in the single market that are currently preventing the advancement of digital services …". Finally, the European Commission (2018, p. 4-5), taking into consideration recommendations from the abovementioned institutions, along with conducted public consultation, has also concluded that there is no need at this stage for any kind of broad regulatory action, but instead the focus should be on actions and initiatives that enhance innovation in financial services.

The FinTech Action Plan proposed further actions for clear and consistent licensing requirements for FinTech firms. In particular, developing European passporting regime for firms within the European crowdfunding service providers (ECSP), many financial institutions that fall under the supervision of the European Banking Authority (EBA), European Insurance and Occupational Pensions Authority (EIOPA) and European Central Bank (ECB) will remain under stricter rules due to financial stability issues. European Supervisory Markets Authority (ESMA) and the Commission will for time being monitor the developments in the areas of crypto-assets and Initial Coin Offering (ICO) and respond with regulatory actions if needed (ibid., p. 5-7). Attention is put on achieving common standards and interoperability between market players.

Another rather reformative way of looking at the role of regulator and/or supervisor has been put forward by disruptive character of innovative technologies. Number of national supervisory authorities have taken a brand new and modern approach to regulating innovative firms. They have established innovation facilitators: innovation hubs and/or regulatory sandboxes to provide more flexible and collaborative approach to innovative business models (further discussed in chapter 3.1). The Commission, along with European supervisory authorities (ESAs), confirms and supports the initiative (ibid., p. 8-9).

The FinTech Action Plan supports EU public blockchain initiative as well as removing obstacles for outsourcing to cloud services and using electronic identification and authentication cross-borders, taking into consideration anti-money laundering and data protection rules. Additionally, the Commission has set up an EU FinTech Lab for building national regulatory and supervisory competences and exchange of ideas about new technologies and proposed actions for developing comparable information platforms for European consumers of financial services. Finally, cybersecurity remains top priority for EU policy actions (ibid, p. 10-17).

Concluding, the EU has a goal to integrate European capital markets and promote mobility, cross border transactions and investments. Through different policy measures of the Capital Markets Union strategy the Commission continuously promotes more interconnected and interoperable capital markets to achieve economy of scale for European financial markets. It is an unceasing process to strike the right balance between integration and security in the EU, i.e. measures that have a goal to remove borders and obstacles to free movement of capital and financial services while preventing money laundering and terrorism financing.

3. GOVERNING THE FINTECH: REGULATION OR COLLABORATION?

The general purpose of the financial market regulation and supervision is to maintain stability, preserve integrity and secure fair play on the market while ensuring protection of the customers and investors. Times are changing; new and different types of businesses are entering the financial arena that used to be reserved for the big financial institutions, which operated under strict and traditional set of rules preventing incidents such as fraud, moral hazard and financial crisis.

There is an open question whether FinTech is operational issues, i.e. how to integrate new technologies to make financial services more efficient, or, do we need to take into account the legal issues. Some claim that FinTech uses different business models then financial institutions such as banks. They find that FinTech are spreading the risk to consumers, while the banks are accumulating the risks within their own institutions (Bromberg, Godwin, Ramsay, 2017). According to this group, regulation should be focused on the financial institutions rather than on FinTech companies.

The Governor of the Bank of England, Mr. Mark Carney stated in his address regarding FinTech: “Our starting point is that there is nothing new under the sun. We need to be disciplined about consistent approaches to similar activities undertaken by different institutions that give rise to the same financial stability risks. Just because something is new does not necessarily mean it should be treated differently. Similarly, just because it is outside the regulatory perimeter doesn’t necessarily mean it needs to be brought inside” (Carney, Bank of England, 2017, p. 8).

Currently, regulatory framework is rather unclear with regard to FinTech, e.g. if a certain firm needs to apply for a license or not. This is primarily because FinTech stands for many different types of businesses that deal with variety of issues. They also differ greatly in the terms of size and significance for the market. Some authors propose flexible and alternative ways to regulate FinTechs such as “lean regulation”, “algorithmic regulation”, open source platforms, international standard bodies (see Brummer, Gorfine, 2014 and Treleaven, 2015). However, some authors warn about risks that Fintech present because they are less transparent to national authorities, more decentralized and therefor more susceptible to economic shocks (e.g. Magnuson, 2018).

It can be beneficial for both Fintech businesses and its consumers to have harmonized settings across European financial markets. It provides certainty and opportunities for both sides to engage in cross border transactions and scale-up across the EU. FinTech often have very high basic (fixed) costs of software and then much lower variable cots so they benefit greatly from the economy of scale, consequently providing better financial services at a lower cost for its customers. For this to happen markets should not be fragmented economically or legally.

Governing FinTech requires therefore a tailor-made approach. European and national financial regulatory and supervisory authorities agreed that FinTech businesses require supportive measures, primarily fast information and focused dialogue as early as possible in the innovation process, open interaction, willingness of authorities to understand their operations and help FinTech businesses figure out where and how they fit into the regulatory system. They have therefore started with an innovative way of governing through collaboration with the FinTech businesses using innovation hubs and regulatory sandboxes (European Commission, 2017a).

In recent years, the number of innovation facilitators has been growing. According to the latest ESAs Report, 21 EU Member States have established innovation hubs, while mostly Central and Eastern European countries have not yet established hubs, namely: Bulgaria, Czech Republic, Slovakia, Slovenia, Croatia, Malta and Greece. Innovation hubs are more of an "information desk", providing regulatory and supervisory guidance and licensing requirements support. So far, only 5 EU Member States have regulatory sandboxes: the UK, Denmark, Lithuania, Netherlands and Poland, and few more under way of establishing. Regulatory sandboxes (further discussed in chapter 3.1) are projects aiming to help testing new models in "regulatory laboratory" environment (European Supervisory Authorities, 2019, p. 7, 40-41).

Innovation hubs are generally open to all firms, which intend to adopt innovative products, services or business models on the financial market. National supervisory authorities provide experts - numbers of them vary from one to nine per national authority, while Italy and the UK reported over 30 experts dedicated exclusively to innovation hubs. They practice different forms of communication: e-mails, telephone calls or meetings. Some authorities publish their "preliminary guidance" in a form of Q&A. Several national supervisory authorities cooperate among each other, sharing the information and experiences. Enquiry volumes range from dozens to hundreds a month. Usually, enquiries are concerning: (i) authorization requirements, (ii) applicability of consumer protection regulation, (iii) regulatory and supervisory requirements and (iv) anti-money laundering issues (Ibid., p. 5-15).

4. REGULATORY SANDBOXES

The term sandbox has been taken from the children's playgrounds into digital world where it stands for testing playfield for new business models. Similarly, in Fintech it stands for developing modern and flexible regulatory frameworks for new innovative business models. Sandbox is therefore a mechanism for developing financial regulation that keeps pace with most advanced innovations. It has an ambitious task to facilitate modernization in financial services and enhance consumer protection at the same time. Beside the EU, several supervisory authorities (e.g. in Australia, Hong Kong, Singapore and Canada) have developed regulatory sandboxes (UNSGSA FinTech Working Group and CCAF, 2019; European Commission, 2018, p. 4).

British Financial Conduct Authority (FCA) is considered one of the most innovative regulators with regard to FinTech. The FCA initiated "Project Innovate" in 2014 (Financial Conduct Authority, 2019). In co-operation with the private sector, they have created regulatory sandboxes as "a 'safe space' in which businesses can test innovative products, services, business models and delivery mechanisms without immediately incurring all the normal regulatory consequences of engaging in the activity in question" (Financial Conduct Authority, 2015, p. 2, 11). Operationally, the firm in question is assigned with the CFA's case officer who provides technical assistance to the firm with regard to regulatory standards and provides guidance how this new business model could operate within existing legal framework (Financial Conduct Authority, 2017, p. 4).

There are quite a few operational challenges for innovation facilitators. National authorities have human resource difficulties in finding and keeping FinTech experts, FinTech often requires multidisciplinary approach of other national authorities (e.g. data protection) and cross-border cooperation between national authorities in the FinTech area has operational difficulties. This all could complicate FinTech projects to be accepted under one national jurisdiction and contested at another, which is damaging for the Internal Market prospects and cross-border transactions and financial integration in the EU. Therefore, it could be expected to have EU network of innovation facilitators in the future (European Supervisory Authorities, 2019, p. 34-35, 38).

Concluding, regulatory sandboxes represent fresh point of view on relationship between regulator and regulated party. It is a valuable learning platform for both institutions, for firms to understand regulatory and supervisory expectations and eliminate regulatory uncertainty and for supervisory authorities to learn more about innovations in financial services, their opportunities and risks ensuring that the best quality of products and services reaches consumers in a timely and secure manner.

5. FINTECH INNOVATIONS AND IMPLICATIONS FOR NEW MEMBER STATES

Emerging markets can progress rapidly because of FinTech innovations. For example, e-commerce platforms in China employ algorithms to analyze transaction and search data to improve credit scoring, which resulted in increase of available credits with low default rates (Carney, Bank of England, 2017, p.6). In Africa (most successfully Kenya and Tanzania), Fintech innovation of mobile money (M-Pesa) has bridged a gap from underdeveloped financial system to a system in which telecommunication companies pioneered an arrangement that provides efficient and secure payment and saving services through creation of e-money recorded on a mobile phone (Arner, Barberis and Buckley, 2016, p. 1295-1297).

In the UK, peer-to-peer lending has increased significantly, improving capital availability for the SMEs for which research shows that up to 50% would not be granted in a normal procedure through bank lending (Carney, Bank of England, 2017, p.6). This trend caused by FinTech is especially relevant to New Member States and their financial markets because they belong to bank-based systems (Demirgüç-Kunt, Levine, 1999). It means that banks are dominant financial institutions on the Continental Europe's financial markets, especially in the New Member States; therefore, companies' main source of capital comes from bank loans. Commission's ambitions from the end of 1990s with the Financial Services Action Plan (European Commission, 1999) was to empower capital markets in order to attain more options for capital raising opportunities, especially to SMEs due to their dynamic and innovative contribution to growth. In the case of New Member States, the growth potentials for capital markets are even higher due to their cur-

rent underdevelopment status. New Member States count for 20% of Europe's population, 8% of GDP but only 3% of its capital markets (European Covered Bond Council, 2018, p. 85).

Chart 1 shows that in the EU, total volume of the FinTech market was above € 1 billion, excluding the UK (Demertzis, Merler, and Wolff, 2018). The UK's FinTech companies account for about 50% of Europe's FinTech. They generate about £ 20 billion in revenue annually, with total market of £ 3,6 billion in disruptive FinTech (Financial Conduct Authority, 2015, p.5). After the UK, within Europe the most active Fintech markets are in France, Germany and Netherlands. As seen on Chart 1, Central and Eastern European (CEE) countries have a very low volume, however trend is very positive because it shows more than 270% of increase in volume.

Empirical studies concerning Fintech have multiplied during last years, however only few studies have been made for the New Member States or Baltic and CEE countries (Deloitte, 2016; Stern, 2017; Kerényi, 2018; Demertzis, Merler, and Wolff, 2018). Most of new financial technologies have not yet reached its full potential in the New Member States. They operate mostly within area of financial services, where they co-operate with banks. Banks are also involved in financial innovations (e.g. mobile payment system in Croatia). Innovation in insurance sector is still underdeveloped in comparison to banking sector. Similar view holds for the asset management sector as well. Electronic payments are used mostly in: Estonia, the Czech Republic, Latvia and Slovenia, while e-money is not used very widely. With regard to financing, in new Member States peer-to-peer lending is generally more popular than crowdfunding, especially in: the Czech Republic, Estonia, Lithuania and Poland. These countries (except Poland) have introduced regulation for peer-to-peer platforms. Generally, all New Member States consider cybersecurity a priority (Ibid).

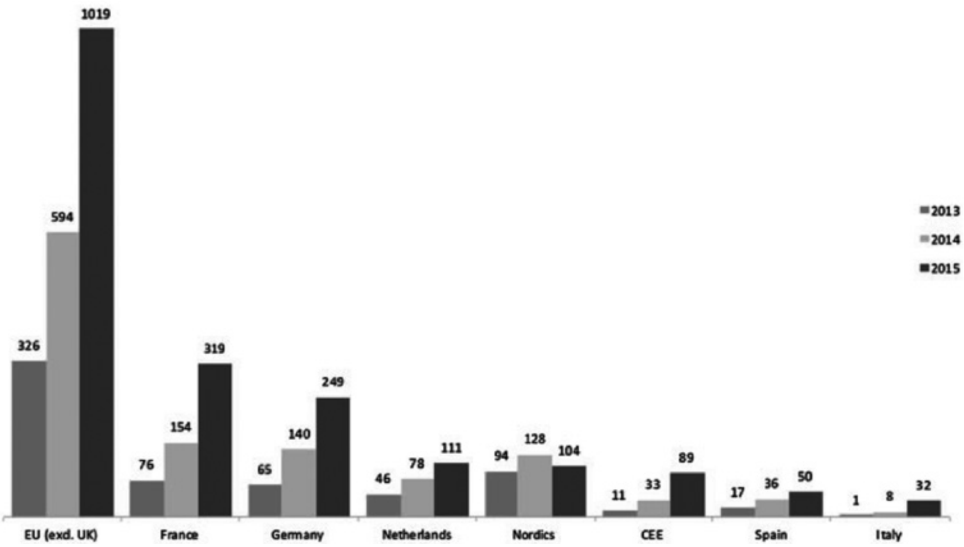


Chart 1. FinTech market volumes in Europe 2013-2015, in millions of EUR
Source: Demertzis, M., Merler, S., Wolff, G. (2018) Capital Markets Union and the FinTech Opportunity, Journal of Financial Regulation, Vol. 4, issue 1, p. 161.

As already mentioned in previous chapters, national regulatory authorities have initiated innovative approach to their regulatory activities with regard to FinTech. They want to fully support their innovative dimension, which leads to economic growth and development, and many of them across the EU have established innovation facilitators in a form of innovation hub or regulatory sandboxes. Unfortunately, level of development of FinTech industry correlates with the level of support from the national regulatory authorities in the new Member States. Innovation

hub are running in: Estonia, Hungary, Lithuania, Latvia, Poland and Romania, while regulatory sandboxes are operating only in Poland and Lithuania, with Hungary planning to start one (European Supervisory Authorities, 2019, p. 40-41). Present experiences show that both parties have great use of innovation hubs and sandboxes. Therefore, innovation facilitators represent valuable value added to better growth and development of the FinTech industries in New Member States.

6. CONCLUSION

FinTech companies are fundamentally reshaping the whole financial system. Digitalization has changed the way financial services are organized, i.e. fewer physical interactions, more online activities and outsourcing data processing. The "old" financial institutions such as banks still have advantages of solid customer network, stability, regulatory expertise and capital for innovation spending. New FinTech companies are more flexible and can be very disruptive. Market research shows that old and new financial institutions operate as competitors but also as partners in innovative projects.

The EU is committed to promote Fintech for economic growth and development, taking into consideration consumer and data protection, as well as cybersecurity issues. The goal is to enable FinTech companies to scale-up across the EU, facilitate cross border investments and indorse financial integration of European financial markets. European Commission's FinTech Action Plan is therefore focused on supportive measures rather than regulatory actions. Even regulators' approach towards FinTech can be characterized as innovative. National regulatory authorities have established innovative facilitators, i.e. innovation hubs and regulatory sandboxes as a new way of communication between regulator and regulated parties, which is more collaborative in its nature. This does not mean lack of rules, but an approach with an open communication, willingness to understand and keep pace with technological revolution.

Emerging markets have great potential for progress through FinTech innovations. There are numerous examples around the world in which new technologies have democratized financial systems and gave more opportunities to customers through better and cheaper financial services and funding opportunities for SMEs. New Member States have very low market volumes in FinTech in comparison to Old Member States, however the trend is changing. FinTech companies can help decrease the cost of raising capital and bank dependence. This would stimulate investments and further develop and integrate capital markets. National regulatory authorities in New member States have lot to gain from implementing best practices of innovation hubs and regulatory sandboxes. To conclude, FinTechs are transforming the way we operate and do business in financial markets. They offer great opportunities for innovation and progress and hopefully the system in place will strike a right balance between innovation and financial stability.

REFERENCES

[1] Accenture (2016) *Fintech and the evolving landscape: landing points for the industry*, Accenture, 2016, https://www.accenture.com/t20161011T031409Zw/us-en/_acnmedia/ PDF-15/Accenture-Fintech-Evolving-Landscape.pdf

[2] Arner, D., Barberis, J., Buckley, R. (2016) *The Evolution of FinTech: A New Post-Crisis Paradigm*, 47 Georgetown Journal of International Law, p. 1271-1319

[3] Bromberg, L., Godwin, A., Ramsay, I. (2017) *Fintech sandboxes: Achieving a balance between regulation and innovation*, Journal of Banking and Finance Law and Practice, 28(4), p. 314-336

[4] Brummer, C., Gorfine, D. (2014) *FinTech: Building a 21st Century Regulator's Toolkit*, Center for Financial Markets, Milken Institute, https://assets1c.milkeninstitute.org/assets/Publication/Viewpoint/PDF/3.14-FinTech-Reg-Toolkit-NEW.pdf

[5] Carney, M. (2017) *The Promise of FinTech – Something New Under the Sun?*, Bank of England, Speech for Deutsche Bundesbank G20 conference on "Digitizing finance, financial inclusion and financial literacy, Wiesbaden, https://www. bis.org/review/r170126b.pdf

[6] Deloitte (2016) *FinTech in the CEE region: Charting the course for innovation in financial services technology*, Department for International Trade, Deloitte, https://www2. deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/central-europe/ce-fintech-in-cee-region-2016.pdf

[7] Demertzis, M., Merler, S., Wolff, G. (2018) *Capital Markets Union and the FinTech Opportunity*, Journal of Financial Regulation, Vol. 4, issue 1, p. 157-165, https://doi.org/ 10.1093/jfr/fjx012

[8] Demirgüç-Kunt A. and Levine, R. (1999) *Bank-Based and Market Based Financial Systems: Cross-Country Comparisons*, World Bank Working Paper, No. 2143.

[9] European Commission (2018) *Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions – FinTech Action Plan: For a more competitive and innovative European financial sector*, European Commission, Brussels, 8.3.2018, COM(2018) 109 final, https://eur-lex.europa.eu/resource.html? uri=cellar:6793c578-22e6-11e8-ac73-01aa75ed71a1.0001.02/DOC_1&format=PDF

[10] European Commission (2017) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Mid-Term review of the Capital Markets Union Action Plan,* European Commission, Brussels, 8.6.2017, COM(2017)292 final, https://ec.europa.eu/info/sites/info/files/communication-cmu-mid-term-review-june2017 _en.pdf

[11] European Commission (2017a) *#FinTechEU - Is EU regulation fit for new financial technologies?*, Brussels, 23.3.2017, https://ec.europa.eu/info/events/finance-170323-fintech_en

[12] European Commission (1999) *Financial Services: Implementing Framework for Financial Markets: Action Plan*, COM(1999)232, Brussels.

[13] European Covered Bond Council (2018) *European Covered Bond Factbook 2018*, 13th edition, Brussels, April 2018, https://hypo.org/ecbc/press-release/wait-finally-2018-edition-european-covered-bond-fact-book-now-available/

[14] European Council (2017) *European Council meeting – Conclusions*, General Secretariat of the Council, 19 October 2017, Brussels, https://www.consilium. europa.eu/media/21620/19-euco-final-conclusions-en.pdf

[15] European Parliament (2017) *Report on FinTech<Titre>: the influence of technology on the future of the financial sector</Titre>*, <DocRef><Commission>{ECON}Committee on Economic and Monetary Affairs</Commission>, Rapporteur: <Depute>Cora van Nieuwenhuizen</Depute>, 28.4.2017, http://www.europarl.europa.eu/doceo/ document/A-8-2017-0176_EN.html

[16] European supervisory authorities (2019) *Report – FinTech: Regulatory sandboxes and innovation hubs*, ESMA, EBA and EIOPA, JC 2018 74, https://eba.europa.eu/documents /10180/2545547/JC+2018+74+Joint+Report+on+Regulatory+Sandboxes+and+Innovation+Hubs.pdf

[17] Financial Conduct Authority (2019) *FCA Innovate*, https://www.fca.org.uk/firms/fca-innovate, visited in January 2019.
[18] Financial Conduct Authority (2017) *Regulatory sandbox lessons learned report*, FCA, London, 2017, https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf
[19] Financial Conduct Authority (2015) *Regulatory sandbox*, FCA, London, November 2015, https://www.fca.org.uk/publication/research/regulatory-sandbox.pdf
[20] Financial Stability Board (2019) *Monitoring of FinTech*, Financial Stability Board, visited on January 2019, http://www.fsb.org/work-of-the-fsb/policy-development /additional-policy-areas/monitoring-of-fintech/
[21] Gabor, D., Brooks, S. (2017) *The digital revolution in financial inclusion: international development in the fintech era*, New Political Economy, 22:4, p. 423-436, DOI: 10.1080/13563467.2017.1259298
[22] Juncker, J.C. (2014) *A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change. Political Guidelines for the Next European Commission*, Opening Statement in the European Parliament, Strasbourg
[23] Kerényi, Á. (2018) *The Fintech Challenge: Digital Innovations from Post-Communist EU Member Countries*, Centre for Economic and Regional Studies of the Hungarian Academy of Sciences – Institute of World Economics, p. 1-47, http://www.tepsa.eu/the-fintech-challenge-digital-innovations-from-post-communist-eu-member-countries-adam-kerenyi-iwe-hungary/
[24] Magnuson, W. (2018) *Regulating Fintech*, Vanderbilt Law Review, 71(4), p. 1167-1226
[25] Puschmann, T. (2017) *Fintech*, Business and Information Systems Engineering, 59(1), p. 69-76
[26] Schueffel, P. (2016) *Taming the Beast: A Scientific Definition of Fintech*, October 31, 2016, Institute of Finance, School of Management Fribourg, Fribourg, Switzerland, SSRN, https://ssrn.com/abstract=3097312
[27] Stern, C. (2017) *FinTechs and their emergence in banking services in CESEE*, Focus on European Economic Integration, Q3/17, Oesterreichische Nationalbank, p. 42-58
[28] Treleaven, P. (2015) *Financial regulation of FinTech*, The Journal of Financial Perspectives, Vol 3, Issue 3, https://www.ey.com/Publication/vwLUAssets/ey-financial-regulation-of-fintech/$FILE/ey-financial-regulation-of-fintech.pdf
[29] UNSGSA FinTech Working Group and CCAF (2019) *Early Lessons on Regulatory Innovations to Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes, and RegTech*, Office of the UNSGSA and CCAF: New York, NY and Cambridge, UK, https://www.unsgsa.org/files/2915/5016/4448/Early_Lessons_on_Regulatory_Innovations_to_Enable_Inclusive_FinTech.pdf
[30] Zetzsche, D., Buckley, R., Arner, D., Barberis, J. (2017) *Regulating a Revolution – From Regulatory Sandboxes to Smart Regulation*, Law Working Paper Series, 2017-006, European Banking Institute.

POST-TRUTH ERA AND VESTED INTERESTS IN APPROACHING ECONOMY IN FINANCIAL NEWSPAPER HEADLINES AND LEADS. *NEWSWORTHINESS QUOTA* IN THE CASE OF PROGRESSIVE TAX VERSUS FLAT TAX IN THE ROMANIAN DAILIES *ZIARUL FINANCIAR* AND *FINANCIARUL*

Aurelia Ana Vasile[1]

DOI: https://doi.org/10.31410/EMAN.2019.341

Abstract: *Nowadays, in times that Ralph Keyes (2004) called the post-truth era, there is an obvious trend towards embellishing or re-shaping the truth until it gets diluted into what the author of this dilution desires and is interested in. The term vested interests coined by William Crano (1995) may account for the background motivation that may lead towards this widely resorted to distortion of the truth so that it may fit the aims of the distorter. When referring to vested interests, the Cambridge Academic Content Dictionary specifies the existence of interests in influencing others so that some benefits may be obtained or preserved. According to Crano (1995, pp. 131-158), "if the attitude object is subjectively important and the perceived personal consequences are significant, there will be a greater chance the individual's attitude will be expressed behaviorally". Such aspects of communication may have strong economic impact, and are therefore crucially significant when they manifest in the main stream media in the field, i.e., in the most important economical publications.*

Economic vested interests may thus have a great impact and bring about the tampering with the truth, mostly on key topics like fiscal policies. Our content analysis of a research corpus of 210 news stories (that got elicited online starting from the keywords "progressive/flat tax") in the two Romanian economic dailies that have the largest circulation, Ziarul Financiar (9200 copies), and Financiarul (8500 copies), in the time span 10th January 2008 – 28th February 2019 has revealed intriguing facts. We have selected such a time span because Financiarul published its very first issue on the 10th of January 2008. The keywords "progressive/flat tax" were chosen as the economic stake of such a topic that they refer to is quite high and it consequently may then trigger strong vested interests and the temptation to tamper with the truth. The fair distribution of the tax burden (Peter Diamond, Emmanuel Saez, 2011, p.165), and the model of optimal tax theory and practice arouse significant interest, mostly on the part of large businesses that engender high profit rates.

We tackled the news story headlines and leads that contain the mentioned keywords, as such story parts comprise the main point of stories. However, the whole orientation of the stories was taken into account for the gist that is relevant with regard to our research aims to reveal some post-truth communication mechanisms involved in economical gearing towards vested interests, in order to better critically understand and be able to strengthen democracy and economic fairness.

According to our findings, in Ziarul Financiar, 28 % of the headlines and leads explicitly tackled the issue, whilst in Financiarul, almost 74 % bluntly referred to the progressive and to the flat tax. There were also clear differences in point of the newsworthiness quota−a term or concept that is aimed to be coined here−allotted by the two dailies to the topic of progressive versus flat tax. Moreover, content specifically, organizations and individuals that appeared in the content of these headlines, leads, and whole stories expressed stances that accounted for vested interests.

Keywords: *post-truth era, vested interests, progressive and flat tax, newspaper headlines and leads, topic (newsworthiness) quota.*

---

[1] College of Journalism and Communication, University of Bucharest, Bd. Iuliu Maniu 1-3, sector 6, Romania

1. POST-TRUTH ERA AND VESTED INTERESTS IN APPROACHING ECONOMY IN FINANCIAL NEWSPAPER HEADLINES AND LEADS

"He that has the truth on his side is a fool as well as a coward if he is afraid to own it because of other men's opinions."

Daniel Defoe, pioneer of economic journalism,
pamphleteer, novelist

Nowadays, at the beginning of the 21st century, the media–including the strongly emerging social media–have been gaining an increasing power in molding public opinion on many key topics, including finance, and particularly taxation. Most tax payers are interested in knowing what kind of taxes they are supposed to contribute to the budget and in what way these taxes would then account for the welfare of society and of oneself. Unfortunately, not everyone really understands the jargon of finance. When tackling this kind of jargon during scholarly activities, it has been noticed that even undergraduate students at the College of Journalism, University of Bucharest show reluctance to issues like fiscal policies, and generally to topics of economical journalism, as they feel like they cannot master such themes so as to be able to have a say regarding flat or progressive taxation. Therefore, there is no wonder that most journalists do not really feel comfortable about the topic either. As a result, those with vested interests may benefit from this reluctance of many ordinary people to deal with the language of finance. The benefit may be obtained through the twisting of the truth that is being catered for the ordinary tax payers, in order to support those vested interests of the and the interests of those that act backstage and that in turn support these supporters of vested interests. Such twisting of the truth inspired Ralph Keyes (2004) into coining the term *post-truth era* to refer to the trend at the beginning of the 21st century towards re-shaping the truth (Vasile, 2018, p. 51) through an image that claims to reflect this truth whilst it actually just creates a sketch of what is rather suitable for the re-shapers of the truth according to their vested interests. It is worth mentioning that Ralph Keyes was inspired by the Serbian-American Steve Tesich who first used the term post-truth in his essay "The Nation". In terms of communication theory, vested interest theory (William Crano, 1995) states that when certain people have a lot at stake regarding a particular issue, they will most probably act towards the respective particular issue in a way that supports their own interests, even if this would be equivalent to tampering with the truth. Vested interests thus account in many ways for the post-truths that are becoming more and more pervasive into much of the media these days.

A specific issue that has already proved to have been tackled according to this vested interest theory is that of flat tax versus progressive tax in Romanian fiscal policies during the past twenty years. Catherine Chatignaux (2013) who was raised at the level of ”chevalier dans l'Ordre national du mérite” (”knight according to the National Merit Order”) in 2008 in France, due to her activity in economic journalism, showed that the introduction of the flat tax brought about wider socio-economic disparities and of what she called ”failure of the adepts of the flat tax” in seven European countries Latvia, Estonia (both in 1994), Russia (2001), Slovakia (2003), Hungary (2011), Bulgaria (2008), and Romania (2005). She showed that, ”in order to finance the budget”, Hungary and Romania had to ”look for other sources” (Chatignaux, 2013) in order to preserve the flat taxation. In the case of Romania, the government resorted to borrowing large amounts of money from the banks at high interest rates (4.3 %, for instance).

Jared Bernstein, a former chief economist to Vice President Joe Biden, and a senior fellow at the Center on Budget and Policy Priorities and author of ‚The Reconnection Agenda: Reuniting

Growth and Prosperity' (2015, pp. 66 - 116) expressed his intention "to elevate policy frameworks in key areas that have been ignored, at best, and abused, at worst, by our political leadership." Obviously, the main reason why political leadership may choose to act as mentioned here by Bernstein is that of the existence of vested interests that may ignore or abuse policy frameworks. Beyond any kind of "politicized rhetoric", Bernstein identifies the "core purpose" of taxing and spending should be the welfare of the people, that is, "to provide the [...] people with the government services and public goods they need and want" (Bernstein, 2015).

From a viewpoint on taxation that is to be considered pro-active, John Maynard Keynes supported countercyclical fiscal policy as "essential to offset market failure, both expected and unexpected" (Bernstein, 2018). And as progressive tax is key to such a countercyclical policy, Bernstein argued that tax revenue should be progressively collected. He added that there are "theoretical rationales for this (the declining marginal utility of money: a dollar means more to a poor person than a dollar does to a rich person) as well as practical ones (ability to pay)".

Consistent to a similar view, Keynes also warned about the limitations of a debt management taxation policy, and discouraged fiscal policies that aimed at tampering with consumption (Caldentey, 2003, pp. 15-45). Unfortunately, debt and consumption based policies appear to be the accompanying strategies adopted in the countries, like Romania, where investments are avoided whilst the 16 % flat tax cannot satisfy all of the needs of a budget that has to cope with populist policies aimed at gaining political support at the elections that keep coming up, either for the presidency, or for the European Parliament, or for the National Parliament.

Influencing public opinion may be one of the most important means of attaining favorable bias for the flat tax by those who may gain from the imposition of such a fiscal strategy that rather protects the rich on the expense of those who have less power to contribute and to defend themselves. And the media, mostly (but not only) the economic publications that give a sense of professional authority in the field, may be the target of messaging in order to shape public opinion in favor of the vested interests of some powerful investors, for instance.

Anyone is familiar with the labelling of the press (media) as "watchdog of democracy". Some authors (Francke, 1995, p. 109) show that "the mass media's influence on the ethics of public life, as characterized by the press's watchdog role in monitoring the conduct of government officials, is assumed to be vital to democracy." However, as it is aimed by this study here, quite often it is the vested interests and the ownership of the media outlet that actually benefit from the watchdog main function of the media. Within such a context, journalist employees in fact comply with the employer's editorial policy that is inflicted within the newsroom(s) that the proprietor may have acquired mostly and precisely in order to impose one's vested interests on public opinion.

Daniel Defoe, best known as a novelist and author of "Robinson Crusoe", who was also a trader, a pamphleteer, and a spy, is mostly celebrated by journalists as a pioneer of economic journalism, or of "consumer journalism" (Hannis, 2008, p. 13). From Daniel Defoe's statement that "he that has the truth on his side is a fool as well as a coward if he is afraid to own it because of other men's opinions" to the journalist watchdogs of the ownership of the media outlets, the post-truth era has unfortunately installed into many economic journalism newsrooms, as one of the assumptions of the study here intends to prove.

As already discussed here, media products play an important part in molding public opinion.

However, they do not belong to the less expensive products in terms of design and any other kinds of production costs. Consequently, in order to survive economically and, even more, desirably, to make profit, media products need to be catchy. They also need to be brief, so as not to bore inasmuch as they are transient, timely products that the target public confronts with on a daily basis, or currently and frequently, anyway.

Therefore, the way the media content is conveyed is key to its success in grabbing the attention of the customers. And, in point of the way this content is designed, the most important elements of the stories in the media are the headlines and the leads, as they both comprise in a catchy and brief manner the main point or a focus idea that is meant to impress the public.

Anyone knows that a headline is like a label for a story; it is a very brief overview of this focus or main point of the story that appears in the paragraph that the journalists like to call "lead" (also spelled "lede" or "leed"), as it leads the story by concentrating the most important idea of the story or article by answering the key "wh-" questions that would pinpoint what is most important about the topic that is deemed to be newsworthy. What makes a piece of information worth writing a story about and then publishing the resulting story is called by journalists – *newsworthiness* (Rich, 2015). It is not the point here to provide details about the criteria that usually function for the selection of newsworthy topics. Still, what is of main interest regarding newsworthiness for this study is specifically the matter of economical journalism issues.

2. RESEARCH OBJECTIVES. HYPOTHESES.

> *"I hear much of people's calling out to punish the guilty, but very few are concerned to clear the innocent."*
>
> Daniel Defoe

A rather implicit tangible purpose of any kind of scientific endeavor should be that of contributing to some socio-economic improvement. This may sound grand, but it should not be overlooked, nor should it be hidden from the vested interested public eye, and therefore it is a main issue of concern along and convergent to the scientific enterprise that is aimed at here.

Ralph Keyes (2004) claimed that deception is becoming more and more influent through the media in the 21st century, due to the attire of post-truth that is designed to cover the truth in an attempt to create either embellished or disrupted images that thus serve vested interests. The study here aims then at analyzing and unveiling some of the data with regard to mass communication in daily economical publications in terms of newsworthiness quotas allotted to a specific topic: progressive versus flat taxation (topic that is subsequent to the wider subject matter of fiscal policies).

Let alone that the topic of fiscal policies is crucially important for a country and for its citizens, what caught the attention of this analysis here is the fact that many contradictory statements and controversial issues came up regarding this topic (flat versus progressive taxation) and appeared in the special economical publications, as well as in generalist media outlets in Romania in the past three decades of restored democracy.

What is more, desirably, the stance of economical publications on such a subject matter should be firstly that of professionals, and it should clarify the issue at stake and support the best eco-

nomical solutions (or fiscal solutions, in the case approached here), rather than support vested interests of high profit seekers at the cost of leaving the average citizen impoverished by the effects of flat taxation fiscal strategies.

Therefore, the main research objectives that are approached have to do with the two economical publications with highest circulation rates and a comparison between them with regard to the topic newsworthiness quotas on progressive versus flat tax, the stances for the progressive tax or against it (in favor of the flat tax) and what categories of vested interests do those that support either of the two belong to.

An obvious other objective is to coin the term "topic newsworthiness quota" as a main indicator to analyze the type of influence (mostly when the topic at stake is approached editorially either in "pro" or in "contra" modes).

A key hypothesis then is that, the more profit-focused the politician or business person that exhibits thus vested interests in supporting the flat tax and rejecting the progressive tax, the higher level of topic newsworthiness quota on progressive versus flat taxation, as explicitly expressed in newspaper headlines and leads of two compared Romanian economic dailies that boast with highest circulation rates.

Another hypothesis that is correlated to the other one above regards the fact that the more interest vested, the more explicit the headline and the lead and the easier to set stances in terms of clearly gauging a higher level of the *topic newsworthiness quota* on progressive versus flat taxation.

3. RESEARCH METHODOLOGY AND CORPUS

The research endeavor here methodologically aims at coining a new term: that of topic newsworthiness quota that is relevant within the framework of content analysis seen quantitatively with regard to summing up the communication data that is first qualitatively categorized.

Ole Holsti (1969, p.2) defined content analysis as a "multipurpose research method developed specifically for investigating any problem in which the content of communication serves as the basis of inference." The research aims already mentioned above, may be best attained by resorting to such a strategy that combines both qualitative selection of the units or categories to be analyzed and the quantitative measurement of the frequencies, quotients and quotas for the research data.

To be more specific, a first step consisted in eliciting newspaper headlines and leads of two Romanian economic dailies from the corresponding online archives by entering the keywords "progressive tax" (in Romanian: "cota progresivă de impozitare") for *Ziarul Financiar* and for *Financiarul*, the two top highest circulation Romanian economic dailies (see the general data, including circulation figures, in tables 1 and 2 below).

The circulation figures have been retrieved on the 20th of February 2019, according to the data from the BRAT – The Romanian Bureau of Circulation Auditing. The key phrase "progressive tax" has been chosen to elicit the onset data as the phrase refers to an issue at stake in the past three decades of restored democracy in Romania and in other East European countries. The

archives have been searched for the time period that spans from the founding (or first issue) of each of the two newspapers up to the 28th of February 2019 (that is, almost up to date). For *Ziarul Financiar* it means 16th November 1998 to 28th February 2019 (that is, a total number of 7,410 issues), and for *Financiarul*, 10th of January 2008 to 28th February 2019 (that is, a total number of 4,068 issues). As the time spans are quite different, some kind of rationalization needed to be applied in administering the analysis of the raw data, so as to be able to perform a consistent, valid and reliable research protocol. Therefore, it has been resorted to the comparison between *topic newsworthiness quotas*, rather than mere sums of media products (headlines and leads).

Table 1. *Ziarul Financiar* General Data

Type of Publication	Daily
Owner	The Media Pro trust
Publisher	Publimedia
Editor-in Chief	Sorin Pâslaru
Date of First Issue	16th November 1998
Language	Romanian (and English in the online version)
Newsroom Address	Bucharest, Romania
Circulation Figures	9,200 (according to BRAT – The Romanian Bureau of Circulation Auditing)

Table 2. *Financiarul* General Data

Type of Publication	Daily
Owner	The Intact Media Group
Editor-in Chief	Gabriela Vrânceanu Firea (until 2011), Edward Pastia (after 2011)
Date of First Issue	10th January 2008 (only online beginning with the 29th of August 2011)
Language	Romanian (and English in the online version)
Newsroom Address	Bucharest, Romania
Circulation Figures	8,500 (according to BRAT – The Romanian Bureau of Circulation Auditing)

According to the *New International Webster's Dictionary of the English Language* (1995, p. 821), a quota is "an allotted share to be either contributed or received", or simply a proportional share or part. It is usually expressed in percentages.

The *topic newsworthiness quotas* a key methodological concept that this study aims at coining, refer to the percentage of topic frequency (that is, of topics deemed to be newsworthy, or, in other words, the topics that are worth being written and published about in mass communication outlets) per publication issues (that is, per time span in the case of dailies). Otherwise, i.e. without calculating quotas, the total number of headlines and leads that tackle the topic would definitely be smaller (23 units only) in the case of the newspaper that published its first issue ten years later (*Financiarul*, in 2008) than the other newspaper that was first published in 1998 (*Ziarul Financiar*, 187 units). On the other hand, the comparison of the quotas has provided more relevant data that is really comparable only if quotas are applied.

The coining of the research concept of ***topic newsworthiness quota*** (that may also be applied to other kinds of content data, as just: ***topic quota***) is of key relevance—as it is strongly posited here—in order to perform the necessary data management for comparisons between elements or

categories or units, etc. that would otherwise be rather not comparable without rationalizing the summing up of the collected raw data.

A second step has been that of summing up the number of units (headlines and leads that contain the key phrase: "progressive tax"), then of calculating the quotient and mostly the quota that corresponds to the sum figures, and then to compare the quotas and interpret these results within a qualitative framework of analysis.

4. RESEARCH RESULTS. INTERPRETATION

The collected data has been analyzed first in order to distinguish between explicit and implicit tackling of the topic "progressive versus flat tax", as expressed in the headlines and leads in the research corpus.

The tables (3 and 4), and figures (1 and 2) below graphically show these findings in a more tangible visual representation of the research results.

Table 3. *Ziarul Financiar* Daily (Circulation: 9,200) Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax

Number of Headlines and Leads Focused on Progressive/Flat Tax	Number of Headlines and Leads that Explicitly Tackle Progressive/Flat Tax	Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax	Percentage of Headlines and Leads on Other Topics
187	53	28,34	71,66

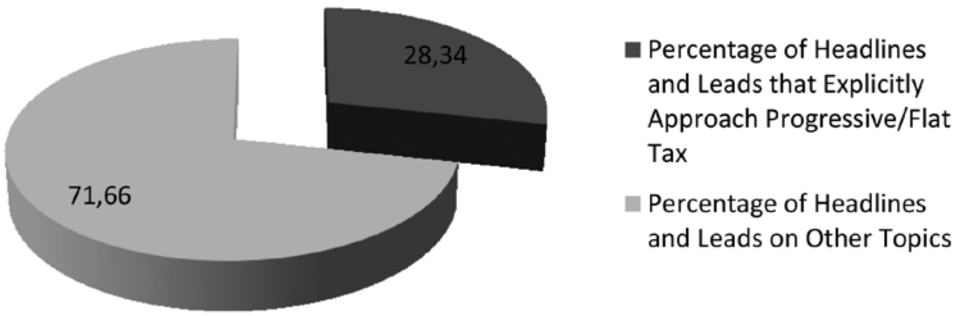


Figure 1. Ziarul Financiar Daily (Circulation: 9,200) Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax

Table 4. *Financiarul* Daily (Circulation: 8,500) Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax

Number of Headlines and Leads Focused on Progressive/Flat Tax	Number of Headlines and Leads that Explicitly Tackle Progressive/Flat Tax	Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax	Percentage of Headlines and Leads on Other Topics
23	17	73,91	26,09

By comparing the data, the two dailies exhibit comparable numbers (including percentages) of explicit approaches to the topic. When the headline (and the lead, as well) of a story (or article) explicitly mentions a key topic, it also obviously dwells on it throughout the body of the story. Therefore, it has not been a matter of interest to tackle the implicit reference headlines and leads within the research area, as journalists focus only on whatever is specified explicitly in headlines and leads, not to the implicit or connotative aspects in the body of their articles. However, the idea of taxation only implicitly appeared in three stories that got elicited through key phrase search in *Ziarul Financiar*. This number of three stories represent an almost insignificant percentage of 1.6 implicitly focused from the total number of stories (articles) that tackled the progressive or the flat tax. Comparatively, a number of six out of a total of twenty-three stories approached the topic implicitly, which represents a significant percentage of 26. The comparison between the total number of stories about the progressive tax in the two economical dailies showed more concern (and mainly an explicit one) for the topic in *Ziarul Financiar*, and less in *Financiarul*.

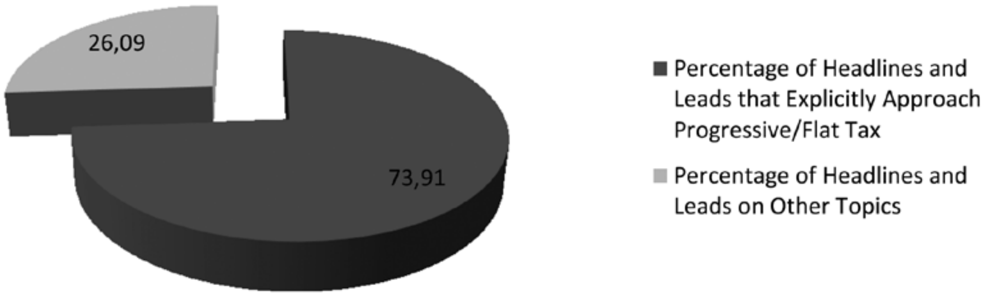


Figure 2. Financiarul Daily (Circulation: 8,500) Percentage of Headlines and Leads that Explicitly Approach Progressive/Flat Tax

The first hypothesis has been confirmed by the research outcomes, i.e., the more profit-focused the politician or business person that exhibits thus vested interests in supporting the flat tax and rejecting the progressive tax, the higher level of topic newsworthiness quota on progressive versus flat taxation, as explicitly expressed in newspaper headlines and leads of two compared Romanian economic dailies that boast with highest circulation rates (see Table 4 and Figures 3 and 4, below).

Table 4. Topic Newsworthiness Quota of Progressive/Flat Tax.
Ziarul Financiar versus Financiarul

Ziarul Financiar.Total no. of news stories approaching the topic (headlines, leads, in-cluded)	Total no. of issues	Topic Newsworthiness Quotient (per total no of issues)	Ziarul Financiar. Topic Newsworthiness Quota of Progressive/Flat Tax. Percentage
187	7410	0,03	2,52
Financiarul. Total no. of news stories approach-ing the topic (headlines, leads, included)	Total no. of issues	Topic Newsworthiness Quotient (per total no of issues)	Financiarul. Topic Newsworthiness Quota Percentage
23	4068	0,01	0,57

The other hypothesis that has been confirmed regards the fact that the more interest vested, the more explicit the headline and the lead and the easier to set stances in terms of clearly gauging a higher topic newsworthiness quota on progressive versus flat taxation.

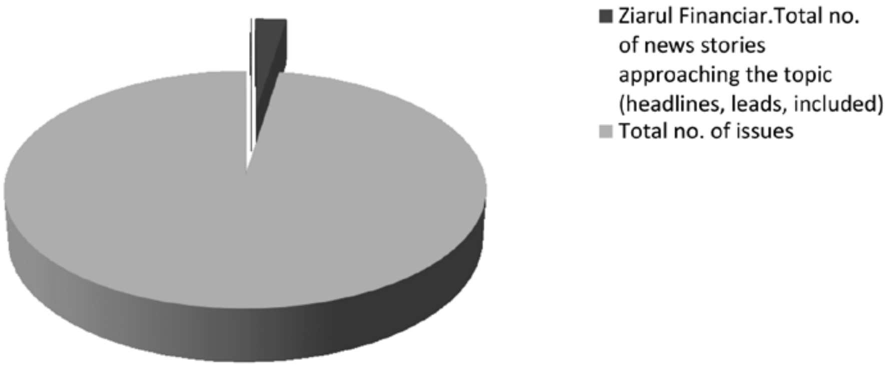


Figure 3. Topic Newsworthiness Quota of Progressive/Flat Tax. Ziarul Financiar

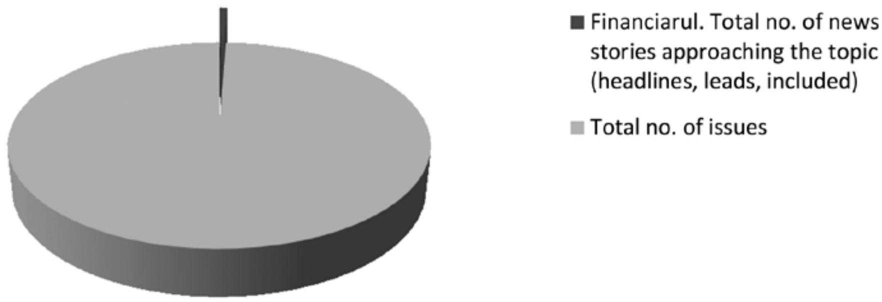


Figure 4. Topic Newsworthiness Quota of Progressive/Flat Tax. Financiarul

The topic quota (in the case here, the topic newsworthiness quota) figures analyzed for the whole time span from the founding of each of the two newspapers until the 28th of February 2019 has shown intriguing fluctuation of this topic quota for the progressive versus flat tax in the two economic dailies. And the most surprising is the soaring of the topic quota in 2010 for both dailies (see figure 7). This led the research endeavor into qualitative study on the content matter of the stories (articles) published in 2010 regarding the topic. Thus, it has been noticed that there were 5 stories on the 13th of July alone against progressive taxation (vested interests of banks and other businesses identified) in *Ziarul Financiar* (see figure 5), and other 2 in *Financiarul* (see figure 6). Searching for the context, the findings showed that the Romanian Minister of Finance in 2010 expressed intention to re-introduce progressive taxation in the country, which led to fierce opposition from those with profit vested interest in maintaining the flat tax. The Minister got ousted consequent to his boldness of announcing such an intention, after serious attacks that were targeted against him.

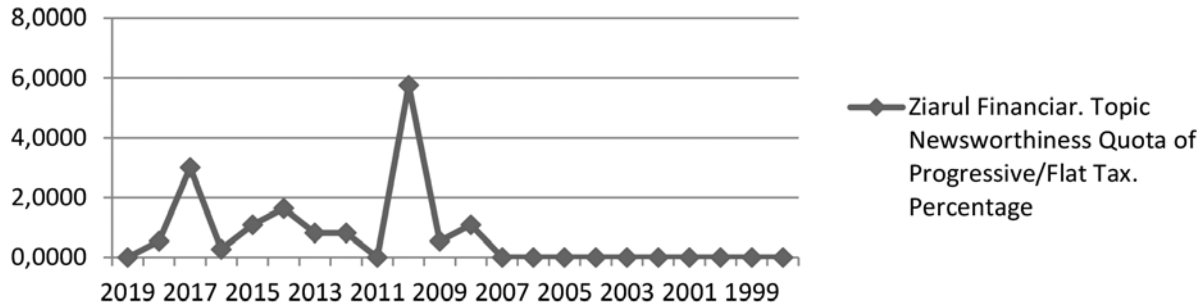


Figure 5. Topic Newsworthiness Quota of Progressive/Flat Tax.
Fluctuation data per year from the first issue to 28 February 2019. Ziarul Financiar

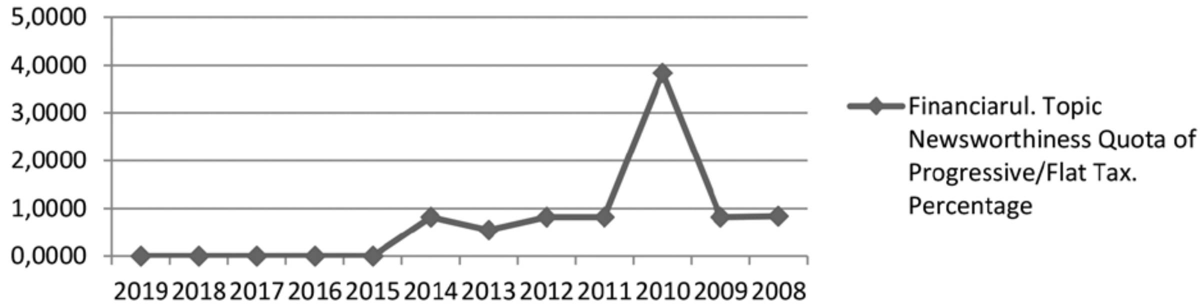


Figure 6. Topic Newsworthiness Quota of Progressive/Flat Tax.
Fluctuation data per year from the first issue to 28 February 2019. Financiarul

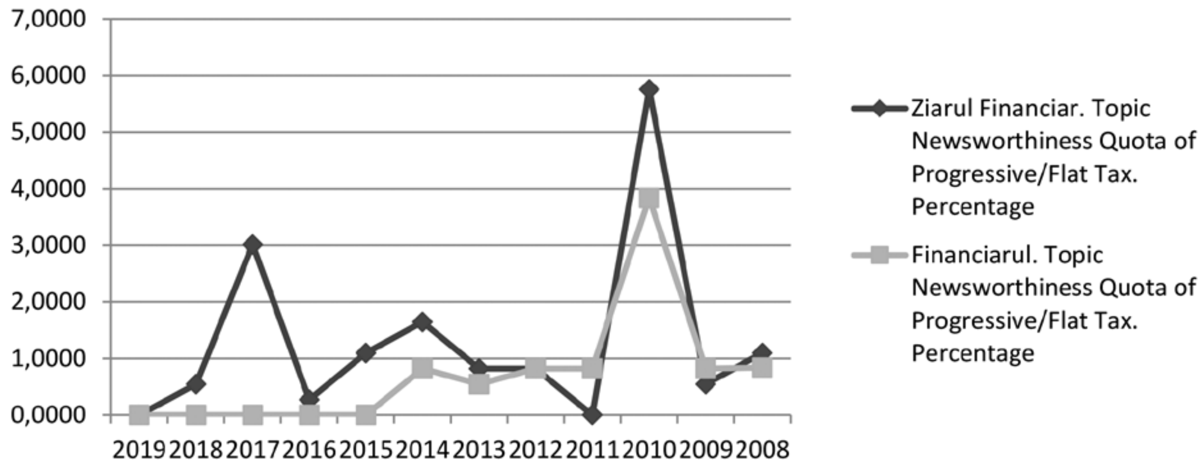


Figure 7. Topic Newsworthiness Quota of Progressive/Flat Tax.
Fluctuation data per year from the first issue to 28 February 2019.
Ziarul Financiar and Financiarul

5. CONCLUSION. FEED-FORWARD

"It is never too late to be wise."

Daniel Defoe

Even from the onset of any such research performed, an important conclusion that has been triggered is that journalists that are also professionals in economics would be the best choice to work for media outlets that are specialized on economic issues. This is basic. Otherwise, even the choice of topics, that is, the decision-making process in editorial policies and in terms of topic newsworthiness quotas would not stand a chance to be better performed, obviously with better results both in circulation or ratings (for the audio and video outlets) and general relevance of the treatment of the topic(s) for the target public(s) unless economy professionals would be part of newsrooms specialized in economical journalism.

Rankings of topics in the form of newsworthiness quotas may provide meaningful information for newsrooms and for critical analyses in comparative studies within the topics in only one media outlet, or in comparative studies also between two or among more than two media outlets with reference to each topic (or just one topic).

Thus, newsworthiness quotas may show important facts about editorial policies in newsrooms, and foster social assessment and even civic and/or professional action and organization for the sake of developing social and communication improvement mechanisms that usually engender economic improvement, as well.

As vested interest theory traditionally categorized individuals as highly vested if the attitude object affected the attitude holder directly (Johnson, Siegel, Crano, 2012, pp. 20-36) in the case of twisted truths regarding fiscal policies, the stake is clear and has to do with the lower flat taxation for the big businesses that attain high profit, at the cost of a large basis of taxation that affects those who gain less, mostly in Romania, where 2.1 million (that is, 60 percent) of the employed Romanians earn minimum wage, as claimed by the most important economic publication in Romania, *Ziarul Financiar* (that makes part of the object of the study here).

All in all, such research, like the one herein, may provide meaningful information and both feed-back and feed-forward data that would prove useful for economic journalists, for economists, and for the target publics of economic journalism, in hopes that the post-truth communication would be replaced by restored truths that would enhance the desirable socio-economic improvement.

REFERENCES

[1] Baker, Therese L. (1994). *Doing Social Research*. New York: McGraw-Hill Inc.
[2] Bernstein, Jared. (2015). *The Reconnection Agenda. Reuniting Growth and Prosperity.* Amazon Digital Services LLC.
[3] Bernstein, Jared. (2018 November 29th). *What Would a Real Fiscal Policy Look Like?.* Retrieved 2019 February 28th from https://www.washingtonpost.com/outlook/2018/11/29/what-would-real-fiscal-policy-look-like-reconnection-agenda-post/?noredirect=on&utm_term=.b280c9af6613.
[4] Caldentey, Esteban Peres. (2003). Chicago, Keynes and Fiscal Policy. *Investigación Económica*. *Vol. LXII*. (246. octubre-diciembre 2003). pp. 15-45.
[5] Chatignaux, Catherine. (2013 January 7th). En Europe, des ratés chez les adeptes de la « flat tax » Les sept pays de l'Union européenne qui ont adopté l'impôt à taux unique traversent la crise non sans difficultés. Retrieved 2019 February28th from
[6] https://www.lesechos.fr/2013/01/en-europe-des-rates-chez-les-adeptes-de-la-flat-tax-300089.
[7] Francke, Warren. (1995). The Evolving Watchdog: The Media's Role in Government Ethics. *The Annals of the American Academy of Political and Social Science. Vol. 537*. Issue 1. DOI: 10. 1177/000271625537000010. pp.109 – 121.
[8] Hannis, Grant. (2008). Daniel Defoe's Pioneering Consumer Journalism in the Review. *Journal for Eighteenth-Century Studies. Vol.30* (1). DOI: 10.1111. pp.13 – 26.
[9] Holsti, Ole R. (1969). *Content Analysis for the Social Sciences and Humanities*. Reading, MA: Addison-Wesley.
[10] Johnson, Ian M. & Siegel, Jason T. & Crano, William D. (2014). Expanding the reach of vested interest in predicting attitude-consistent behavior. *Social Influence Journal*. *Vol.9.* (Issue 1). pp. 20 - 36.
[11] Keyes, Ralph. (2004). *The Post-Truth Era: Dishonesty and Deception in Contemporary Life*. St. Martin's Press.

[12] Keynes, John Maynard. (1998). *Keynesianism into the Twenty-first Century*. Northampton: Edward Elgar.

[13] Pointdexter, Paula M. & McCombs, Maxwell E. (2000). *Research in Mass Communication. A Practical Guide*. New York: Bedford/St. Martin's.

[14] Rich, Carole. (2015). *Writing and Reporting News: A Coaching Method*. Cengage Learning.

[15] Saez Emmanuel & Diamond Peter. (2011). The Case for a Progressive Tax: From Basic Research to Policy Recommendations. *Journal of Economic Perspectives. Volume 25*. (No. 4, Fall 2011). pp. 165 – 190.

[16] The New International Webster's Dictionary of the English Language. (1995). Naples, Florida: Trident Press International

[17] Vasile, Aurelia-Ana. (2015). *Los medios de comunicación y el pensamiento critico*. Madrid: Niram Art.

[18] Vasile, Aurelia-Ana. (2018). The Műnchausen Effect and the Post-Truth Era Advertising Messages. Critical Analysis on Fallacious and Enthymematic Advertising Slogan Argumentation. *Essachess - Journal for Communication Studies. Vol 11*. (No. 2 - 22). pp. 51-66.

CROWDFUNDING FINANSIRANJE – STANJE I PERSPEKTIVE U SRBIJI

CROWDFUNDING FINANCING – SITUATION AND PERSPECTIVES IN SERBIA

Biljana Rabasović[1]
Mlađen Vićentić[2]
Ivana Marković[3]

DOI: https://doi.org/10.31410/EMAN.2019.353

Sadržaj: *Crowdfunding je nov način grupnog prikupljanja sredstava za finansiranje inovativnih ideja, čiji se koreni mogu pronaći još u dalekoj istoriji. Ovaj specifičan model finansiranja u svetu beleži brz rast sa razvojem Interneta i društvenih mreža. U Srbiji ovo još uvek nije slučaj, mada poslednjih godina dolazi do blagih pozitivnih pomaka.*

U radu će biti predstavljen istorijat razvoja ovog specifičnog modela finansiranja, mogućnosti i prednosti prikupljanja finansijskih sredstava uz pomoć crowdfunding platformi, objašnjeni osnovni tipovi, motivacije za učesnike i mehanizmi funkcionisanja. Takođe, biće dat prikaz dosadašnjih kretanja u Srbiji i okruženju u ovoj inovativnoj oblasti grupnog finansiranja.

Prethodnih godina, na ovaj način u Srbiji su prikupljena relativno skromna sredstva. Najviše sredstava prikupljeno je u oblasti umetnosti, obrazovanja i preduzetništva, dok projekti zaštite životne sredine, zaštite ljudskih prava i razvoj tehnologije zauzimaju zanemarljiv procenat.

Neke od prepreka u dosadašnjem slabom razvoju ovog modela finansiranja, do kojih se u istraživanju došlo jesu: nizak stepen upoznatosti ciljne javnosti sa postojanjem i mehanizmima funkcionisanja ovog načina finansiranja, nepoznavanje potencijalnih koristi koje pruža, veoma mali odziv backer-a sa domaćeg tržišta i brojni drugi. Nameće se zaključak da postoji mnogo prostora za razvoj ali i da je neophodna edukacija svih strana i bolja informisanost o mogućnostima i motivaciji za učesnike sa obe strane. Neki od koraka u ovom procesu su već započeti i detaljnije će biti predstavljeni u radu.

Ključne reči: *Crowdfunding, grupno finansiranje, stanje i perspektive u Srbiji.*

Abstract: *Crowdfunding is a new way of obtaining resources for financing innovative ideas, which beginnings go far back in the past. This model of financing has experienced rapid growth with development of Internet and social media. However, it is still not the case in Serbia, although we can notice slight improvement in the last couple of years.*

In this article, the historical development, possibilities, and advantages of crowdfunding are going to be presented, as well as some basic types, motivators, and functioning principles. In addition, the overview of current situation in Serbia and the region is shown.

The aforementioned way of gathering financial resources has performed poorly in Serbia in previous years. Majority of collected funds are related to art, education and entrepreneurship, while environmental protection, strengthening of human rights, and technology development had limited presence.

---

[1] Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija
[2] Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija
[3] Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija

Some of the key reasons for poor growth of crowdfunding discovered through this research are: insufficient awareness about the functioning and mechanisms of crowdfunding among the key audiences, low awareness of its benefits, very low number of backers from the local market, etc. As a conclusion, huge potential of crowdfunding has been discovered, but it has to be backed by education of stakeholders. Some of the specific steps of this process have been conducted, and are going to be presented in this article in detail.

Keywords: *Crowdfunding, group financing, situation and perspectives in Serbia.*

1. UVOD

Reč crowdfunding je kovanica od engleskih reči "crowd" (grupa, gomila) i "funding" (finansiranje). Spada u takozvani FinTech novi segment tržišta, koje je kombinacija finansijskih usluga i tehnologije. Ovakvo tržište ubrzano se razvija u protekloj deceniji, stvarajući potpuno nov prostor finansijskih usluga za povezivanje pojedinaca i kompanija u investiranju, pozajmicama i ulaganju novca. [1]

Mnoge ideje, proizvodi, usluge, događaji i projekti nisu zaživeli zbog nedostatka sluha za njihov potencijal i realizaciju. Crowdfunding pruža mogućnost mnogima koji na drugi način nisu uspeli, ili ne žele da dođu do sredstava za finansiranje svojih projekata. Ovaj vid alternativnog prikupljana finansijskih sredstava funkcioniše tako što oni koji imaju ideju nju izlažu na što uverljiviji i originalniji način putem za to specijalno predviđenih platformi – crowdfunding platformi. Putem tih platformi ljudi iz celog sveta koje nazivamo backerima ili donatorima se mogu upoznati sa svim detaljima projekta i ukoliko odluče mogu podržati isti donacijom izvesne sume. Suma zavisi od volje i mogućnosti samog donatora, a može se kretati od nekoliko stotina do nekoliko stotina hiljada dolara.

Na ovaj način zajednica podržava realizaciju projekata i izbegavaju se teške i komplikovane procedure tradicionalng načina prikupljanja novca. Ne postoje nikakva ograničenja šta se sve može „crowdfundigovati", od recepata za jela, organizacija događaja, neobičnih proizvoda i usluga, renoviranja prostora, zaštite baštine i očuvanja tradicije, umetničkih projekata i humanitarnih akcija.

2. ISTORIJAT CROWDFUNDING-A

Može se reći da istorija crowdfunga počinje u isto vreme kada je nastao i novac. Vremenom rastu potrebe za pozajmicama, ulaganjem, doniranjem i brojnim oblicima finansijkih usluga. "Moderna istorija crowdfunga" nastala je onda onda kada su novi kanali komuniciranja omogućili da se tradicionalni tokovi novca realizuju putem web tehnologija odnosno Interneta, te tako nastaje grupno prikupljanje sredstava kakvo danas poznajemo. [2]

Godina koja se često pominje kao početak Crowdfunding-a je 1997. kada je britanski bend Marillion putem Interneta pozvao svoje fanove da učestvuju u prikupljanju novca, kako bi se sprovela njihova povratnička turneja, za koju nisu imali sredstava. Zahvaljujući ovoj akciji putem Interneta prikupljeno je oko 60.000 dolara. [3]

Ovo je bila inspiracija za prvu oficijelnu crowdfunding platformu ArtistShare koja i danas postoji. ArtistShare pokrenuta je 2003.godine kao platforma koja povezuje fanove i umetnike kako bi “podelili lepotu kreativnog stvaralašta i obezbedili svaranje novih umetničkih dela “.
Projekti nastali zahvaljujući podršci ArtistShare osvojili su mnogo nagrada, među kojima je i trideset Gremi nominacija i deset Gremi nagrada. [4]

Nakon velikog uspeha ove platforme uviđa se mogućnost primene istog principa prikupljanja sredstava za realizaciju raznih vrsta projekata, a ne samo umetničkih. Godine 2005. osniva se Kiva, neprofitna organizacija koja daje šansu pojednicima da daju pozajmice bez kamate preduzetnicima u siromašnim područjima širom sveta. [5]

Godine 2008. pojavljuje se i danas jedna od najvećih crowdfunding platformi - IndieGoG, koja omogućava bekerima da podrže realizaciju raznih ideja sa ciljem da se pronađu inovativna rešenja za svakodnevne poslove. Ova zajednica je pomogla da se realizuje više od 800.000 ideja, a danas broji više od 9 miliona bekera iz 235 zemalja. [6]

Kickstarter je još jedna vodeća crowdfunding platforma koja se osniva godinu dana nakon IndieGoG, odnosno 2009. Ova platforma takođe funkcioniše po principu nagrade kao i IndieGoG. Ona ima više od 10 miliona bekera koje motiviše da svojom podrškom udahnu život kreativnim i originalnim projektima. [7]

U Srbiji se 2014. godine pokreće platforma za grupno finansiranje neprofitnih projekata elektronskim putem, poznata kao Donacije.rs. Uz pomoć ove platforme prikupljena su ogromna sredstva koja su iskorišćena za saniranje posledica poplava koje su se desile iste godine kada je sajt počeo sa radom. Danas, na ovoj platformi sve neprofitne organizacije imaju mogućnost da pokrenu svoju kampanju i prikupe neophodna sredstva zahvaljujući donatorima širom sveta. Ova organizacija posvećena je negovanju kulture davanja u zemljama u regionu. Donatori mogu da podrže kampanje poput: izgradnje mesta za porodice mališana obolelih od raka, izgranje nove kuće novinaru kome je kuća zapaljena, rok kampa za devojčice i drugih. [8]

3. PREDNOSTI I NEDOSTACI CROWDFUNDINGA

Prikupljanje sredstava putem crowdfunding platformi često je dosta brže nego kada se to radi tradicionalnim metodama, podnošenjem zahteva banci ili drugim finansijskim institucijama. Nekada je potrebno svega nekoliko dana ili nedelja da se prikupi potrebna suma. Banke zbog smanjenja sigurnosti u proceni rizika smanjuju sredstva za investiranje u inovativne ideje, pooštravaju već rigorozne mehanizme selekcije ideja i projekata koje bi finansijski podržale. Nasuprot tome, crowdfunding platforme upravo motivišu donatore da ovakve ideje podrže. Da li će zahtev za investiranje od strane raznih finasijskih institucija biti odobren, zavisi od nekolicine stručnjaka koji su zaduženi za ove vrste poslova, dok kod crowdfundinga o sudbini novih ideja odlučuje veliki broj ljudi širom sveta, koji su ujedno i potencijali lojalni kupci i potrošači proizvoda ili usluge. Ovo je još jedna prednost ovog alternativnog metoda prikupanja sredstava, naime kada se za određeni projekat, ideju, proizvod, uslugu zainteresuje stotine ljudi širom sveta i pri tom pruži pudršku za njihovu realizaciju, može se reći da je test faza marketinga već uspešno realizovana i da je istraživanje tržišnih mogućnosti uspešno obavljeno. Kada se ideje izlože, može se doći do vrednih infomacija o tome kako ih poboljšati i šta treba izmeniti pre ulaska na tržište.

Lansiranje kampanja na crowdfunding platformama zahteva ozbiljnu pripemu i dobar tim. Ta pripema nekada traje mesecima. Da li će donatori podržati projekat zavisi, pored originalnosti i vrednosti ideje, upravo od toga koliko je priprema dobro urađena, da li je projekat dobro i kvalitetno predstavljen, da li su ciljevi realno postavljeni. Od više hiljada kampanja koje se pokrenu promoću platformi za grupno prikupljanje sredstava samo određeni procenat bude uspešan i dobije podršku donatora. Mnogi projekti ostaju nerealizovani iako je za njih utrošeno mnogo vremena i energije kako bi bili promovisani. Takođe, većina platformi ima veoma striktna i detaljna pravila o tome šta jeste a šta nije dozvoljeno u kampanjama. Ukoliko se sva pravila ne ispoštuju, moguće je da kampanja neće biti ni pokrenuta. Na mnogim platformama ukoliko kampanja ne ispuni zvoj zadati cilj i ne prikupi se onoliko sredstava koliko je planirano, sredstva se jednostavno vraćaju onima koji su ih uložili. Neuspešne kampanje mogu uticati negativno na reputaciju i ugled pojednica, firme ili organizacije koja je nosilac ideje. Oni koji izlažu potpuno nove ideje na crowdfunding platformama, pre nego što su ih patentirali ili pravno zaštitili, dovode ih u rizik od konkurencije koja može ideju prisvojiti ili iskopirati.

4. TIPOVI CROWDFUNDINGA I MOTIVACIJE ZA UČESNIKE

Priroda ideje i potrebe projekta diktiraju tip cowdfoundinga i generišu i pokreću motivaciju donatora. Ona može biti racionalna (materijalna korsit) ili emocionalna. Kada bakeri očekuju određenu korist za uloženi novac u vidu poklona, hartija od vrednosti ili povratka investicija, govorimo o racionalnim motivima. U slučajevima kada bakeri doniraju sredstva kako, bi tim gestom ispoljili društvenu odgovornost, pripadnost, empatiju, altruizam ili moralnu obavezu, onda je motivacija koja ih je pokrenula na podršku emocionalne prirode. [2]

Dakle, u zavisnosti od potreba i motivacije obe strane u procesu, razvila su se četiri osnovna tipa crowdfundinga:

- **Donatorski crowdfunding** – je tip crowdfundinga gde bakeri doniraju novac za onu ideju koja je njima bitna, a za uzvrat ne očekuju i ne dobijaju nikakvu materijalnu nadoknadu. Ovaj tip grupnog prikupljanja sredstava tipičan je za društveno korisne i humanitarne projekte. U Srbiji se donatorskim crowdfundingom bavi zajednica donacije.rs, dok je na međunarodnom nivou veoma poznata platforma GlobalGiving.
- **Crowdfunding baziran na nagradama** – kao što sam naziv nagoveštava, kod ovog tipa prikupljanja sredstava donatori očekuju određenu nagradu zauzvrat. Te nagrade mogu biti simbolične, a u zavisnosti od ozbiljnosti i veličine, kako projekta tako i investicija, ove nagrade mogu biti i prilično vredne. Crowdfunding baziran na nagradama je i najrasprostranjeniji, a na ovom principu funkcionišu najpoznatije i najveće platforme, Kickstarter i IndieGoGo.
- **Investicioni crowdfunding –** za uložena sredstva u projekte ili ideje bakeri dobijaju udeo u potencijalnoj dobiti, odnosno hartije od vrednosti. Ovakav tip prikupljanja sredstava je pogodan prilikom osnivanja novih kompanija. U Srbiji se inviesticioni crowdfunding tek razvija. [9]
- **Crowdfunding baziran na pozajmicama –** zahvaljujući ovoj metodi prikupljanja sredstava moguće su pozajmice po daleko povoljnijim uslovima nego što je to slučaj prilikom bankarskih kredita. Pored toga što je ovaj tip crowdfundinga najrasprostranjeniji u isto vreme je i najkompleksniji, ovde se moraju uzeti u razmatranje i mogući rizici, visina kamate i drugo. Iako banke ovaj metod pozajmiljivanja i dalje ne osećaju kao pretnju, stručnjaci predviđaju da će u budućnosti doći moment kada će ova usluga ugroziti bankarske kredite. Prva i najveća ovakva platforma je pomenuta Kiva. [10] [11]

5. STANJE I PERSPEKTIVE U SRBIJI

Na osnovu istraživanja portala za promovisanje crowdfundinga u Srbiji do danas je ovim alternativnim vidom prikupljanja sredstava prikupljeno 700.000 dolara. Od ukupno 405 pokrenutih kampanja, nešto više od 7% uspešno je završeno, tačnije 41 kampanja. Interesantan je i podatak da su žene u manjini uključene u vođenje kampanja, njih je manje od trećine ukupnog broja učesnika. Srbija je po iznosu prikupljenih sredstava na trećem mestu u regionu, posle Slovenije i Hrvatske. Međutim, nije zanemarljiv podatak da je Slovenija prikupila 80% od ukupnih sredstava. Najbrojniji su projekti u polju umetnosti, što nas razlikuje od zapadnih zemalja, gde je većina projekata iz oblasti tehnlogije. Srbi su uspešniji sa kampanjama na platforni Kickstarter (37%) nego na Indiegogo-u (3%). Pozitivan je podatak da se broj kampanja od 2012. godine uvećao 4 puta. Broj backera se u odnosu na 2016.godinu utrostručio, danas ih je ukupno 10.649 [9]

Tabela 1: Najbolje kampanje u Srbiji, izvor: crowdfunding.rs

Kampanja/Platforma	**Prikupljena sredstva**	**Broj donatora/backera**
1. Scorn Part 1 of 2/ Dasein Kickstarter	226.615 $	5.636
2. Tank Ches Kickstarter	107.827 $	2.006
3. Nebeska tema – film o Vladi Divljanu Indiegogo	41.662 $	518
4. Folkk: Handcrafted Homeware With a Cause Kickstarter	20.983 $	177
5. Lightstep chronicles – Retro Futuristic Space Opera Comic Book Kickstarter	12.424 $	500

Kako je crowdfunding u Srbiji tek u povoju, može se reći da je zapravo to još uvek neistraženo i nezasićeno tržite, što daje mogućnosti predstavljanja novih, inovativnih ideja i projekata, pa samim tim i veću zainteresovanost backera da pruže podršku inovativnom i orginalnom. Za sada je primetan izuzetno mali odziv backera sa domaćeg tržišta, što govori o nepoznavanju ili rezervisanosti prema ovoj novini.

Ipak, neophodno je podizati svest i edukovati potencijalne nove učesnike o stanju i potencijalima crowdfundingu. Sa tim ciljem do sada su održane dve crowdfunding konvencije, zatim tu je i Crowdfunding akademija gde timovi koji žele da pokrenu kampanju mogu detaljno da nauče na koji način treba izvršiti pripreme i šta je važno da bi kampanja bila uspešna, a za pojedince koji žele da prošire svoje znanje u ovoj oblasti organizuju se jednodnevne radionice odnosno Crowdfunding bootcamp-ovi. [2]

Neophodno je nastaviti započetu, ali i intezivirati edukaciju ostalih potencijalno zainteresovanih učesnika i raditi na popularizaciji ideje i preko tradicionalnih medija. Online transacije na ovakvim tržištima opterećene su strahovima i nepoverenjem i zato je neophodno raditi na jačanju poverenja u ovaj vid prikupljanja sredstava, obezbediti i održavati transparentnost tokom čitavog veka projekta, od prvog pojavljivanja do njegove realizacije i rezultata. Podrška države je neophodna, kako na zakonodavnom i regulacionom, tako i na polju promocije.[4]

[4] Pored mikro fondova, izraelska vlada je obezbedila finansiranje mikro preduzeća ckroz rowdfunding kanal prikupljanja sredstava od većeg broja bogatih i iskusnih investitora kroz model „pametnih investitorskih klubova“ (engl. smart investor clubs.). Za manje od dve godine, sakupljeno je 90$ miliona, kapital je investiran u 55 kompanija i privučeno je više od 6.000 investitora. [12]

6. ZAKLJUČAK

Zahvaljujući crowdfunding-u nastalo je novo tržište koje pruža mogućnosti za dolazak do neophodnih finansijskih sredstava za realizaciju ideja i projekata koje nikada ne bi «ugledale svetlost dana». On svojim alatima pruža široke mogućnosti za „demokratizaciju i komercijalizaciju" i inovativnosti i finansiranja [13]. Ovaj koncept može biti naročito važan za zemlje u kojima je visoka stopa nezaposlenosti a male mogućnosti za pridobijanje investicija, što je slučaj sa Srbijom i zemljama u regionu. Nezasićenost i neiskorišćenost svih crowdfunding kapaciteta u našoj i okolnim zemljama može biti izazov za one koji žele da zakorače na ovo novo tržište.

Alternativni načini prikupljanja sredstava beleže svakim danom sve veći rast i u geografskom i u pogledu brojnosti donatora i finansijskih sredstava. Pitanje je trenutka kada će crowdfunding postati pretnja tradicionalnim finansijskim institucijama. Zbog toga, ove institucije u bliskoj budućnosti moraće mnogo više da rade na svojim konkurenskim prednostima, što neće biti lako ako se uzme u obzir da je crowdfunding vrlo pristupačan, transparentan i geograski široko rasprostranjen, a sa ovakvim karakteristikama teško je takmičti se.

U Srbiji do sada nisu napravljejni veliki pomaci u ovoj oblasti. Započeta je promocija i edukacija potencijalnih interesenata, ali je potrebna mnogo šira inicijativa kako bi se postigao veći uspeh. Država, preko zakonodavnog okvira za regulaciju ovakvog mehanizma finansiranja, edukatorske i podrške subvencionisanjem malih preduzetničkih biznisa, zvanične finansijske institucije, obrazovni sektor, privredne komore, nacionalne službe za zapošljavanje i svi oni kojima je mesto u lancu podrške preduzetničkim idejama, treba da prepoznaju i rade na potencijalima ovog savremenog alata za pridobijanje finansijskih sredstava.

LITERATURA

[1] Statista - The Statistics Portal. dostupno na: https://www.statista.com/outlook/335/100/crowdfunding/worldwide#market-revenue, (14.02.2019.)
[2] Gregović, M. Tranfić I. Lauš, K. (2018) Crowdfunding u Srbiji. Brodoto, D.P. dostupno na: https://uploads-ssl.webflow.com/5a5a19d59629620001cd714d/5b0ee03bea40414c0a232860_Crowdfunding%20u%20Srbiji%20-%20Istraz%CC%8Civanje.pdf, (14.02.2019.)
[3] Anoraknophobia pre-order press release "Music Industry First as Marillion Fans Finance New Album, September 2000, dostupno na: https://web.archive.org/web/20110914094146/http://www.marillion.com/press/anorak.htm (16.02.2019.)
[4] ArtistShare - the Internet's first *fan-funding* platform for creative artists; dostupno na: http://www.artistshare.com/ (14.02.2019.)
[5] Kiva.org, dostupno na: https://www.kiva.org/about/how (16.02.2019.)
[6] Indiegogo.com, dostupno na: https://www.indiegogo.com/about/our-story (16.02.2019.)
[7] Kickstarter.com, dostupno na: https://www.kickstarter.com/about?ref=global-footer (14.02.2019.)
[8] Donacije.rs, dostupno na: https://donacije.rs/ (14.02.2019.)
[9] Grupno finansiranje, Crowdfunding, dostupno na: https://www.crowdfunding.rs/crowdfunding (20.02.2019.)
[10] Crowdlending - model crowdfunding-a baziran na pozajmicama, dostupno na: https://www.crowdfunding.rs/blog/crowdlending-model-crowdfunding-a-baziran-na-pozajmicama (16.02.2019.)
[11] LandingClub, dostupno na: https://www.lendingclub.com/ (20.02.2019.)
[12] Petrović, D. Makroekonomski ambijent u funkciji podsticanja inovacija i preduzetništva – primer države Izrael. *Megatrend Review.* Vol. 13, No 1, 2016: 1-34
[13] Mollick, E. Robb, A. (2016) Democratizing Innovation and Capital Access: The role of Crowdfunding. *California Management Review* vol. 58, no.2.

TEMPORARY DISTORTIONS AND INDIVIDUAL IGNORANCE

Marius Calin Benea[1]
Maria Laura Benea[2]

DOI: https://doi.org/10.31410/EMAN.2019.359

Abstract: *Individuals live their lives under the forces of time and ignorance. Since the economy is dealing with the study of a significant part of people's lives, it was normal that aspects of it to be considered sooner or later. Our intention, when we started this paper, was to develop a certain apparatus of economic analysis, which unites several branches of the sciences that study the products of cooperation between people and to show how these products evolve depending on the expectations and the time horizon of individuals. The term "ignorance" has nothing pejorative in this context because it is largely the result of a rational choice of individuals. Limiting resources, and in particular time availability, causes people not to use all the information they might gather if they have at their disposal unlimited amounts of time and money. In addition, certain information, such as the tastes and wishes of others, is inaccessible to the individual from an economic point of view. The individual must rely on certain mechanisms and social institutions to co-operate with his fellows, including trading.*

But one of the temptations that one finds hard to resist is to show how people's lives can be ameliorated if some bad influences would be eliminated; how can those forces that apparently destroy the plans of individuals can be countered; Finally, how, through some well-thought-out measures, people's lives can get a happy turn when they no longer expect anything better. From this perspective, we hope that the present paper transmits in an indirect way a clear message: we have resisted this temptation. No! People's lives cannot be made better by pencil traits, by genius ideas about the overall social organization or by combating ignorance. Instead, it can be made more difficult and miserable.

It is right that social sciences do not have, in the eyes of many, the status of physics or mathematics for example. However, economic constraints are real and cannot be avoided simply by ignoring them. Ignorance becomes truly dangerous only when some people can decide the fate of others over their will.

Keywords: *Economics, time, ignorance.*

1. INTRODUCTION

The human being, as we know it, is in itself a social product. The actions that the human being undertakes are circumscribed to the category of forms of social co-operation. For example, the market is a form of social co-operation, it is the broadest and at the same time that embraces all the other. The market is a form of ordering social actions: each individual try to achieve his goals, while at the same time it has the collaboration of other individuals.
Social cooperation in the most varied forms results in a lot of social products: language, currency, music, technology, ethics, etc. All these appear and change as a result of the actions of a multitude of people. Some social products are the result of a conscious action aimed at their obtaining; others appear as a collateral result of individual actions. In particular, social products of the latter type represent the pillar of support for forms of social cooperation.

1 „Politehnica" University Timișoara, Faculty of Engineering Hunedoara, str. Revoluției, Nr.5, Hunedoara, Romania
2 „Politehnica" University Timișoara, Faculty of Engineering Hunedoara, str. Revoluției, Nr.5, Hunedoara, Romania

The variety of interests determines not chaos, but the specific ordering of various social products. The fact that many people do not know grammar does not prevent them from talking. Not many are aware of the implications of the theory of narrow relativity, but this does not prevent them from inventing and modifying various instruments in accordance with their momentary interests. Many people have no idea of the implications of economic science but they are still billionaires [1]. What makes social cooperation possible? A first indication gives us the existence of language. Despite thousands of languages on Earth, people can communicate each other. The structure itself, on which language [2] is based, and language - thinking [3], must be at the basis of all forms of social cooperation. Indeed, action aimed at a purpose implies a rational calculation, a weighing of the means appropriates to the achievement of the proposed goals [4]. When we claim to understand whether this calculation has been established, we assume an appeal to logic. And so, we make the second connection. Social relationships are possible due to the exchange of people, an exchange that involves an understanding of the common contribution for different purposes. This common understanding is possible due to the structure of language, which in turn is based on logic. Logic [5] represents the point of reference or nodal, the link between human knowledge and social cooperation. Denying the existence of a unique appeal to logic means denying the possibility of understanding any form based on voluntary co-operation, as well as the impossibility of scientific knowledge, different from a mere sum of prejudices and collections of facts.

2. THE IGNORANCE OF INDIVIDUALS

Part of the contemporary world, however, relies on daily living on the growing consumption of consumer goods. This is the so-called ”Western civilization”, as well as its “clones”. This is the economic system that has produced the sustained growth of prosperity over the last three hundred years, relying on the deepening of the specialization of individuals and the generalization of trade. As a collateral product of this lifestyle arose and what we called the production structure. This delicate mechanism regulates the distribution of resources so that the production process can be granted according to the expectations and desires of individuals. This system solves two major types of problems: individual ignorance and temporal distortions.

The ignorance of individuals depends fundamentally on the evolution of the production structure. The more specialties and more products and more entrepreneurs appear, the harder for an individual to have a sufficient amount of knowledge enough to achieve his goals. Individuals are forced to specialize more in a certain type of knowledge and use the rest of knowledge in an indirect way by buying the services of other individuals. One of the effects of this type of evolution of social relations is that “hopes” can emerge within the evolution of the production structure. If sellers and buyers are not at the same level of information on certain markets, there are three possibilities: either trust develops between the parties and the market for the product thrives; or trust is steadily betrayed, and that market diminishes and disappears; or trust is sometimes betrayed and the market is stretching and shrinking, generating sudden changes in prices, too fast and unpredictable to allow for the right adjustment of individual plans.

For example, in the personal computer market there is often a discrepancy between the knowledge of computer manufacturers and vendors, on the one hand, and the knowledge of buyers, on the other hand, as regards the technical characteristics of a computer and its components. Here’s the way vendors get used to selling their products. They create certain configurations (types of computers depending on the components included) for some buyer’s anticipated wishes (as

they will rather use the computer for office applications, games, graphics processing, etc.). But to make them as salable as possible, vendors tend to introduce as much as cheap and non-essential elements as configurable, as inexpensive, but as expensive as possible. The package thus obtained is relatively inexpensive, but less functional than would be possible at the same price, and without great “upgrade” options.

However, the computer components industry relies primarily on introducing faster performance pieces. Given that normal users (who are the overwhelming majority) will not change their computers from one day to the next, if the ‚upgrade’ possibilities are reduced to a sufficient number of computers, then the newer parts will not have enough demand big or rather it will be extremely difficult to anticipate so that the price of these components will have to be fallen faster than anticipated, and the price of some older components will drop more slowly than expected or even increase. This phenomenon can be described as a ‚hop’ in the production structure, because the song makers are in the face of a double dilemma: whether to continue innovation at the same pace and whether to continue production at the same pace. Producers are now suffocated by the competition of their own previous production.

This phenomenon, as well as all the disturbances in the production structure, arises as a result of estimation errors by entrepreneurs. Remarkable, however, of the other usual forms of modifications in the production structure due to passive errors or changes to the current plans of individuals is that such a phenomenon can generate clutter of errors.

The production structure is a way to recreate the process of resource allocation in society. Once captured within the production structure, the resources are transformed successively (in the downward direction of the production stages) to the consumer goods stage. The place that a certain good has to occupy at any given moment in the production structure is given by its relative price.

The place that a good actually holds is given by its monetary price relative to the other monetary prices relevant to the entrepreneur who supports the allocation process. The differences that may arise between the ratios between the monetary prices and the relative prices contribute to the accumulation of errors in the production process. The higher the errors, the more likely the magnitude of the subsequent variation in the prices of the goods affected will be greater and more difficult to anticipate, reflecting the re-evaluation of business opportunities. Agglomerations of errors are a remarkable case because they generate such unanticipated variations (and unpredictable in that context) of the prices of goods in the production structure. Price variations mean in the day-to-day language increases or decreases in the incomes of the owners of those goods. These include: oil refineries, installations in the steel industry, services purchased by employees in these industries, various buildings, agricultural land, irrigation pipes. The unanticipated decrease in the incomes of the owners of these types of goods is characteristic, for example, of Romania’s economy. The generalized poverty of those owners exists because these types of goods are not (and have not) been consistently redirected to other uses. Therefore, the poverty of these people is self-sustaining.

The Dunning-Kruger effect: the paradox of ignorance - the illusion of superiority

It is a phenomenon known in psychology as the Dunning-Kruger Effect and actually consists of a cognitive distortion that generates in the minds of unprepared persons in a certain area an over-evaluation of one’s own abilities.

The name derives from the association of the names of the two American psychologists who discovered and researched the phenomenon, in 1999 to publish a paper on this subject: David Alan Dunning, professor of psychology at the University of Michigan, and Justin Kruger, professor of psychology at New York University School of Business.

The phenomenon was tested for the first time in a series of experiments, the results of which were published in 1999. The two psychologists also relied on older studies showing that misjudgment of competence is due to ignoring proficiency standards. This pattern has been observed in very different studies, such as the ability to understand reading, driving a car or playing sports such as chess or tennis.

Dunning and Kruger say that, in a certain area:
1. They tend to overestimate their own level of competence,
2. Fail to recognize the high competence of the truly competent,
3. Do not realize the dimensions reached by own ignorance,
4. They manage to accept their own incompetence only after they have achieved a high level in that field.

The two psychologists tested the four hypotheses mentioned above on a group of students at Cornell University's psychology courses.

In a series of studies, they noted the subjects' appreciation of themselves as regards their logical reasoning skills, grammar knowledge and humor. After the results of their own tests were shown, the subjects were asked to estimate their position in the batch: the competent ones estimated their position correctly and the incompetent overestimated their position. During four studies, Dunning and Kruger have noticed that subjects ranked in the last quarter in humor, grammar, and logic tests have greatly overestimated their possibilities. Although the tests were at the level of 12% (in the fourth quarter), they were estimated at 62% (in the second quarter). At the same time, the skilled ones tended to underestimate their own competence. Generally, subjects who considered light tests have mistakenly estimated that these tests are easy for others. A later study suggests that very incompetent subjects managed to better estimate their level after little training in a field where they did not understand, while estimates in areas where they were not trained remained the same as before. At the opposite end there would be those who, having a rich bag of knowledge on a particular argument, feel more uncertain than the first. And if we think of Socrates' quotation with which the article begins, we can understand that those who have extensive knowledge and solid training on a particular argument, the more they enter the meander of human knowledge, they will realize the immense vastness of things existing and not yet known. As a result, those who make accurate analyzes and in-depth studies on a particular phenomenon, for example, or on a particular subject, will gradually become aware of all the possible details missing from the overall picture they have been able to reach. The question, of course, is: what can we do? Of course, there are no immediate solutions, but, as it seems, the first step would be made by teachers, generally those in the pedagogical field, who like Socrates to educate their pupils and students more in the spirit of uncertainty and doubt rather than self-gratification. We are aware that it is a complex path that requires time, patience, and a lot of determination, because doubts mean putting into play the often-illusory certitudes that our existence often relies on, but which can in fact constitute a firm barrier to the way personal elevation. Ultimately, it is an effort that each of us owes to do, if we do not want ignorant overestimating infinitely to take over the rest of society.

3. TIME DISTORTIONS

Time distortions are the inconsistencies between the expectations of individuals about the final or intermediate results of production processes and the actual results. These distortions, which are to some extent inevitable, arise as a result of incorrect expectations of individual action plans. In order to produce a certain volume of consumer goods, there is a need for a certain amount of production goods, certain technologies, certain specializations and a certain arrangement of them. As this process is mediated by millions of people, errors are inevitable. Instead, they can be minimized if the markets on which the necessary resources traded are liquid and the monetary prices closely match the relative prices.

Such serious time distortions can occur especially if some key resources are not allocated by the market mechanism or it plays a small role so that the prices of these resources are adjusted very slowly. If the time horizon is high, error correction is extremely slow, as is the case for example in the education system. Since prices for education and training services are formed on a very rigid market (due to the many regulations and the traditional way in which this activity is perceived), they cannot be adjusted up to the level of the present value of the future marginal income of the future income earned by the recipient of the education services due to the use of these services). As a result, resource allocation is mistaken and, over time, the entire education system in its current form may disintegrate.

4. CONCLUSIONS

- Looking for their own interest, individuals are forced to develop and use various social institutions to coordinate their actions,
- Market prices denominated in currencies allow individuals to make concrete calculations in terms of resource allocation,
- The possibility that various wishes of individuals can be fulfilled generates a complex system of resource allocation due to the temporal component of production,
- People rely on the production and trade of goods that will only bring some expected satisfaction in the future,
- The temporal dimension of individual action becomes important from the time that production for future consumption is socially feasible.

REFERENCES

[1] L. Wittgenstein (2001, paragraph 6.52): We feel that even when all possible scientific propositions receive an answer, our life problems are still not at all achievable. Of course, there is no question in this case; and this is precisely the answer. Life problems are life problems, and scientific issues are scientific issues.

[2] N. Chomsky (1988, p. 317): "I do not think thinking is just a silent speech, but that a considerable part of what we call thinking only consists of a linguistic manipulation."

[3] F. Hayek (1948, pg.76): „Just as the existence of a common structure of thought is the condition of the possibility of our communicating with one another, of your understanding what I say, so it is also the basis on which we all interpret such complicated social structures as those which we find in economic life or law, in language, and in customs."

[4] Cf. Mises (1963, pg. 21): "The only standard which it applies is whether or not the means chosen are fit for the attainment of the ends aimed at".

[5] J. Locke (1961, p. 317): "Because we can acquire knowledge only by clear and certain truths, error is not a guilt of knowledge, but a judgmental error because it gives assent to something that is not true".

EMOCIONALNA INTELIGENCIJA KAO FAKTOR KOMPETENCIJE USLUŽNOG OSOBLJA

EMOTIONAL INTELLIGENCE AS A COMPETENCE FACTOR OF THE SERVICE STAFF

Biljana Rabasović[1]
Vladimir Krivošejev[2]
Nikola Stojanović[3]

DOI: https://doi.org/10.31410/EMAN.2019.365

Apstrakt: *Uslužna industrija ili industrija iskustva, kako je danas nazivamo, kao ključni resurs prepoznaje kvalitetno uslužno osoblje. Emocionalna inteligencija*[4] *postaje sve važnija snaga ovog kvaliteta, ukoliko kognitivne sposobnosti i stručna znanja posmatramo kao podrazumevajuće. Kako se većina usluga proizvodi i troši u interakciji davaoca i korisnika, neretko, i više korisnika u isto vreme, a uslužno osoblje predstavlja deo same usluge, to i određeni elementi konstrukta EI imaju veći ili manji uticaj na uspeh "momenata istine".*

Cilj ovog rada jeste da se predstave najvažniji elementi EI, njihov uticaj na ukupnost kvaliteta kompetencija uslužnog osoblja i, konačno, na kvalitet isporučene usluge.

Kvalitet i nivo EI utiču na intrapersonalne i na interpersonalne regulatorne procese pojedinca. Na unutrašnjem planu, zaposleni sa višim stepenom EI svesniji su svojih emocija i faktora koji ih izazivaju, što im omogućava lakše regulisanje negativnih emocija, postizanje višeg nivoa zadovoljstva životom i poslom, manji stepen izgaranja, efikasnije prepoznavanje i borbu sa stresorima. Na spoljašnjem planu, viši novoi varijabli EI povećavaju potencijal kvaliteta interpersonalnih odnosa i preko empatije omogućavaju pojedincu da shvati emocije drugih, a u višim fazama njima i upravlja. Posmatrana zajedno, ova dva aspekta čine nezaobilaznu platformu za razumevanje problema i potreba drugih i osnovni su uslov za pružanje visokokvalitetne usluge prilagođene korisniku, što je imperativ najvećeg broja grana uslužne industrije.

Ključne reči: *uslužno osoblje, kompetencije, emocionalna inteligencija, međuzavisnost emocionalne inteligencije uslužnog osoblja i kvaliteta usluge.*

Abstract: *Service industry, or experience industry as we call it nowadays, recognizes high-quality service staff as a critical resource. Emotional intelligence is becoming increasingly important element of such quality, if we take cognitive abilities and particular job-related skills for granted. Since majority of services are being produced and consumed during the interaction between the service provider and the purchaser(s), while the service staff is a part of the service itself, certain elements of emotional intelligence have more or less effect on the „moment of truth".*

The goal of this scientific work is to present key elements of emotional intelligence, their effect on the service staff competencies, and ultimately on the quality of provided service. Quality and level of emotional intelligence affects both interpersonal and intrapersonal processes of a person. Internally,

1 Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija
2 Geografski institut SANU „Jovan Cvijić", Departman za društvenu geografiju i turizam Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija
3 Visoka poslovna škola strukovnih studija Valjevo, V. Karadžića 3a, Valjevo, Srbija
4 U daljem tekstu EI.

employees with higher levels of emotional intelligence are more aware of their own emotions and related factors, enabling them more control over the negative emotions, as well as achieving higher level of both job and self-satisfaction, less burnout possibilities, and more efficient personal stress management. Externally, higher levels of emotional intelligence variables are increasing the quality of one's interpersonal relations, enabling understanding of people's emotions through empathy, and later to even managing them. Observing collectively, these two aspects are making an inevitable pathway for understanding problems and needs of others, and are a foundation for providing a high-quality, user-adjusted services, which is a must for most of the service-related companies.

Keywords: *Service staff, competencies, emotional intelligence, service staff emotional intelligence service quality interrelation.*

---

1. UVOD

Opšte je prihvaćeno da kognicija i emocije u sadejstvu oblikuju funkcionisanje ličnosti i regulišu socijalna ponašanja prilagođena kulturnom i vrednosnom sistemu. Popularnost koncepta EI raste sa rastućim zahtevima radnih mesta i okruženja uopšte. Emocijama i EI danas se zanima veliki broj nauka i disciplina: psihologija, neurologija, endokrinologija, medicina, računarske nauke, menadžment i upravljanje ljudskim resursima, marketing i uslužni marketing, komunikologija i brojne druge.

Uslužni sektor bogat je interakcijama i najveći broj usluga proizvodi se i troši u prisustvu davaoca i korisnika, a ne tako retko, i većeg broja korisnika istovremeno. Za uspeh ovih "momenata istine" potrebno je mnogo znanja, veština i kompetencija, ali ipak on zavisi i od ogromnog broja nekontrolisanih varijabli. Simultanost i heterogenost osobine su usluge koje najdirektnije proističu iz osobina ljudskog rada. Kvalitet usluge određuju mnoge varijable. EI jedan je od važnih prediktora kvaliteta usluge. Uslužni susreti razlikuju se po tri osnovne dimenzije: vremenskom trajanju interakcije, emocionalnom sadržaju i prostornoj blizini pružalaca usluga i korisnika (*Price, Amould i Deibler,* 1995) [9]. Emocionalni sadržaj u korelaciji je sa doživljajem i značajem usluge za korisnika.

2. DEFINISANJE I RAZVOJ KONCEPTA EMOCIONALNE INTELIGENCIJE

EI obuhvata sposobnosti zapažanja, procene i ispoljavanja emocija; sposobnost raspoznavanja i generisanja emocija koje olakšavaju kogniciju, sposobnost razumevanja emocija i znanje o emocijama; i sposobnost regulisanja emocija sa ciljem unapređenja emocionalnog i intelektualnog razvoja [11].

Istraživanja o emocijama i uticaju EI na mnoge aspekte života i posla danas su toliko brojna, da se može učiniti da je bavljenje emocijama produkt našeg doba. Istina je da ono seže još od stare Grčke i Platonovih pokušaja da objasni prirodu ljudskog znanja i ljudske duše. Čarls Darvin je u svom delu „Izražavanje emocija kod čoveka i životinja - o funkcionalnoj svrsi emocija", (1872-1965) izneo tvrdnje da su upravo emocije osigurale opstanak i adaptaciju energiziranjem potrebnog ponašanja životinja [15]. Darvin je tvrdio da emocionalni izraz igra vitalnu ulogu u adaptivnom ponašanju, što je u osnovi svih teorija o EI do današnjih dana [16].

U literaturi su do danas sumirana tri ključna pristupa EI [5]: EI je *sposobnost* obrade informacija koje se tiču emocija, kako sopstvenih, tako i tuđih, pa, shodno tome, postoje individ-

ualne razlike u kapacitetu da se emocije opaze, ispravno tumače i da se njima na određeni način upravlja, dakle u osnovi se zasniva na mentalnim sposobnostima; 2) EI je *komponenta ličnosti* koja pospešuje pozitivne organizacione ishode, ali i bihejvioralne aspekte i ishode i 3) EI je *kompetencija* satkana od različitih psiholoških konstrukata koji, osim sposobnosti, manje ili više uključuju i neke druge, nekognitivne aspekte. Klasični psiholozi tvrdili su da je ona urođena i da se na nju ne može mnogo uticati, neki savremeni da je rezultat interakcije ličnosti i okruženja, dok *Gardner* u teoriji MI zastupa tvrdnju da je inteligencija kombinacija naslednih potencijala i veština koje se razvijaju kroz različita relevantna iskustva i uticaje okruženja [3].

3. VRSTE I KOMPONENTE EMOCIONALNE INTELIGENCIJE

Kasnih ‘70-ih i ranih ‘80-ih američki psiholog *Howard Gardner* razvija « teoriju višestrukih inteligencija » (*The theory of multiple intelligences*) ukazavši na to da ljudi imaju različite vrste inteligencija, tvrdeći da ne postoji jedna opšta. Inteligenciju je definisao kao sposobnost za rešavanje problema i stvaranje proizvoda koji se cene u jednom ili više kulturnih i vrednosnih sistema [3]. Identifikovao je osam različitih inteligencija: lingvističku, logičko-matematičku, prostornu, muzičku, telesno-kinestetičku, naturalističku, interpersonalnu i intrapersonalnu inteligenciju. Posle dve i po decenije bavljenja ovim konceptom ovaj autor danas zastupa dve osnovne tvrdnje: l) Ljudi ne poseduju jednu inteligenciju, već ceo raspon inteligencija, a inteligencije su ono što definiše ljudska bića kao misaona 2) Ne postoje dve osobe, čak ni blizanci, sa istim profilom intelektualnih snaga i slabosti [3]. Osnovna razlika između njegove i klasičnih teorija inteligencije, pored strukture, je i u prirodi nastanka, jer za razliku od klasičnih psihologa koji je smatraju urođenom, Gardner tvrdi da se ona stiče i usavršava.

Autori *Mayer i Salovey* u dugogodišnjem bavljenju EI dali su možda i najveći doprinos definisanju, modeliranju i instrumentarijumu za procenu EI. Oni su, svojstveno naučnoj metodoligiji, postepeno i sistematično, razvijali modele i instrumentarijum za procenu EI [17]. Njihov model (tzv. «četiri grane ») uključuje percepciju, procenu i izražavanje emocija, emocionalnu facilitaciju mišljenja, razumevanje i analizu emocija i, na kraju, refleksivnu regulaciju emocija [10].

Bar-On je definisao EI kao niz ne-kognitivnih sposobnosti, kompetencija i veština koje utiču na kapacitete pojedinca da uspešno upravlja zahtevima i pritiscima okruženja [1].Struktura Bar-On modela je multifaktorska i on, pored osnovnih sposobnosti EI za obradu emocija (koje su ustanovili Salovei i Maier, 1990) uključuje i nekoliko dispozicija ličnosti koje su bile ranije identifikovane kao determinante efektivnog funkcionisanja. Bar-On model obuhvata petnaest sposobnosti ili veština povezanih sa emocijama. Ove komponente grupisane su u pet klastera: intrapersonalna, interpersonalna, upravljanje stresom, prilagodljivost i opšte raspoloženje. Intrapersonalna komponenta prema Bar-On modelu obuhvata sposobnosti i dispozicije: samosvest, razumevanje sopstvenih snaga i slabosti, izražavanje misli i osećanja na konstruktivan način. Interpersonalna komponenta modela se odnosi na sposobnost pojedinca da razume osećanja i potrebe drugih, uspostavi i ostvari kooperativne, konstruktivne i uzajamno zadovoljavajuće odnose. Prilagodljivost se odnosi na sposobnost efikasnog upravljanja ličnim, društvenim i promenama u okruženju, realno i fleksibilno, suočavajući se sa izazovima, rešavanje problema i donošenje odluka. Upravljanje stresom obuhvata sposobnosti konstruktivnog i efikasnog upravljanja i kontrole emocija kako bi emocije funkcionisale u našu pojedinca. Opšte raspoloženje se odnosi na sposobnost da budemo optimistični i zadovoljni sobom i drugima [1,7].

4. EMOCIONALNA INTELIGENCIJA KAO FAKTOR KOMPETENCIJE

Goleman je, verovatno, najzaslužniji za široku popularizaciju EI kao faktora kompetencije. Prema ovom autoru EI uključuje sposobnosti motivisanja i istrajnost pred pritiscima, kontrolu impulsivnosti i odlaganje zadovoljenja, regulaciju raspoloženja i sprečavanje potištenosti, saosećanje i optimizam. On definiše emocionalnu kompetenciju kao „naučenu sposobnost zasnovanu na EI koja rezultira izvanrednim performansama na poslu“[4]. Pored toga, *Emmerling* & *Goleman* (2003) tvrde da *Maier* i *Salovei*-jeva definicija EI predstavlja naš potencijal za ovladavanja specifičnim sposobnostima, dok emocionalne kompetencije predstavljaju stepen do koga je pojedinac savladao određene veštine i sposobnosti“ [6].

Goleman-ov početni pristup EI je uključivao sledećih pet komponenti: *Samosvest* (prepoznavanje sopstvenih emocija i njihovih uzročnika); *Samoregulacija* (upravljanje sopstvenim emocijama i očuvanje njihove stabilnosti); *Samomotivacija* (usredsređenost na ciljeve uprkos preprekama, rad zbog vere u uspeh a ne iz straha od neuspeha, odlaganje zadovoljenja i prihvatanje promena radi postizanja ciljeva); *Prepoznavanje emocija drugih* (razumevanje osećanja koja se prenose kroz verbalne i neverbalne poruke, pružanje emocionalne podrške drugima kada je to potrebno i razumevanje veza između emocija i ponašanja drugih); i *Upravljanje odnosima* (sprečavanje afektivnih konflikata sa taktom i diplomatijom) [6].

Golemanova konceptualizacija oslanja se ne tzv. “Velikih pet” crta ličnosti ali njegov pristup proširiuje ovaj konstrukt tako što uključuje niz specifičnih socijalnih i komunikacionih veština koje počivaju na emocijama.

5. EMOCIONALNA INTELIGENCIJA I KOMPETENCIJE USLUŽNOG OSOBLJA

Kompetencije zaposlenih predstavljaju najvažniju nevidljivu imovinu uslužnog preduzeća. Postoji nekoliko pristupa u definisanju vrsta kompetencija zaposlenih. Jedan od njih kaže da se sve kompetencije dele na kompetencije za otkrivanje značenja (*Meaning Competences*), kompetencije za izgradnju odnosa (*Relation Competences*), kompetencije učenja *(Learning Competences*) i kompetencije za sprovođenje promena (*Change Competences*).

Veći broj modela i koncepata bavi se uzročno-posledičnim vezama između EI, uslužnog osoblja, emocionalnog rada i kvaliteta usluga odnosno zadovoljstva korisnika. Neki od ovih koncepata su: odgovorno organizaciono (OCB) i prosocijalno ponašanje, model tzv. emocionalne zaraze, lanac usluga – profit, sagorevanje (*burnout*), prevladavanje stresa, altruizam i opšta altruistička motivacija (PSM), kooperativnost, LMX- razmena lider-član i brojni drugi.

Emocionalni rad, kao jedna od suštinskih komponenti usluga u svim sektorima uključuje četiri koraka: „čitanje“ afektivnog stanja klijenta, analizu i usklađivanje sopstvenog afektivnog stanja, postizanje i odabir najboljeg afektivnog odgovora prema datoj situaciji i suzbijanje ili izražavanje emocije radi adekvatnog efekta (*Nevman* i sar.) [8].

Visoko „emocionalno inteligentni“ zaposleni ulažu manje napora u regulisanje emocionalnih reakcija, sa manje napora postižu iskrene emocije, imaju manje emocionalno trošenje i sklonost ka „sagorevanju“ pa samim tim i više energije da se bave zahtevima posla.

Odgovorno organizaciono ponašanje – OCB, jeste „individualno diskreciono ponašanje koje nije direktno prepoznato od formalnog sistema nagrađivanja organizacije i koje podstiče efikasno funkcionisanje organizacije“ (*Organ,* 1988). Na srpski jezik prevedeno je i kao “Organizaciono građansko ponašanje” (Čizmić i Petrović, 2015) [13]. Koncepti bliski ovome jesu prosocijalno organizaciono ponašanje (*Prosocial Organizational Behavior*), ponašanje van okvira radne uloge (*Extra-Role Behavior*- *ERB*,) i kontekstualno radno ponašanje [13]. Svi koncepti i ponašanja podrazumevaju ponašanje van zahtevima definisane uloge, doprinose poboljšanju kvaliteta psiholoških i socijalnih konteksta rada, poboljšanju kvaliteta usluge, zadovoljstva korisnika i, konačno, dobrobiti organizacije. Za sva ova ponašanja brojne studije pronašle su direktnu vezu sa visokim nivoom pojedinih faktora EI.

Dva modela ukazuju da zadovoljstvo poslom posreduje između emocionalnog rada zaposlenog i zadovljstva klijenta – model *emocionalne zaraze* i *lanac usluga – profit* [18]. Model *emocionalne zaraze* (*Hatfield* i sar.) sugeriše da zadovoljstvo poslom radnika može biti instrumentalni faktor u posredovanju odnosa između emocionalnog rada zaposlenog i zadovoljstva klijenata zbog “emocionalne zaraze”, afektivnog transfera koji se javlja tokom interakcije između zaposlenih i klijenata. Što su zaposleni u uslugama zadovoljniji, oni doživljavaju povećane pozitivne efekte koji se eksplicitno prenose klijentima, što rezultira odgovarajućim promenama u njihovom afektivnom statusu putem “mehanizma zaraze” (*Pugh,* 2001; *Barsade,* 2002) [18]. Brojni autori pronalaze distinkciju između uticaja iskrenih i odglumljenih emocija na zadovoljstvo klijenata. Iskrene, duboke i autentične emocije direktno rezultuju većim zadovoljstvom klijenata u većini uslužnih industrija. Međutim, površne i odglumljene emocije nemaju negativan uticaj na korisnika usluga u uslužnim industrijama kratkih i površnih uslužnih susreta sa slabim kontaktima [2], kao što je npr. brza hrana, taksi prevoz i sl. gde klijenti i ne očekuju visoko emocinalno angažovanje osoblja.

Model *lanac usluga – profit* tvrdi da je veza između zadovoljstva poslom i zadovoljstva klijenata zasnovana na kumulativnoj percepciji kvaliteta usluge i vrednosti oblikovane interakcijama zaposlenih i klijenata tokom uslužnog susreta. Zaposleni sa visokim nivoom zadovoljstva poslom imaju snažniju motivacije za rad (*Ponašanja u vezi sa dodatnim naporima*), i pružaju bolji kvalitet usluga i vrednost od onih sa niskim nivoom zadovoljstva poslom, što dovodi do većeg zadovoljstva klijenata, a onda i boljih finansijskih rezultata uslužne firme (*Vhitman* i sar. 2010) [18].

Autori *Côté* i *Miners* utvrdili su kako visoka EI može da utiče na poboljšanje kvaliteta izvođenja posla osoblja sa niskom kognitivnom inteligencijom, kada su performanse posla niske. Prvi mehanizam odnosi se na sposobnost identifikovanja i razumevanja emocija drugih pojedinaca (kolega, supervizora, klijenata). Zaposleni koji tačno detektuje emocije kolega može olakšati koordinaciju i saradnju što vodi poboljšanju performansi zadataka (*Lav* i *sar.* 2004) [2]. Drugi mehanizam kojim EI može poboljšati radni učinak pojedinaca sa niskom kognitivnom inteligencijom vezan je za regulisanje uticaja emocija na kvalitet društvenih odnosa. Zaposleni koji generišu i pokazuju iskrene emocije izazivaju povoljnije reakcije nego zaposleni koji iskazuju lažne emocije (*Grandei,* 2003). Ovo osoblje može koristiti svoje sposobnosti da upravlja emocijama i razvija dobre društvene odnose i zauzvrat poboljšati učinak zadataka putem saveta i socijalne podrške (Sparrove i sar. 2001). Dobri međuljudski odnosi takođe podstiču zaposlene da se angažuju u OCB-u u korist kolega. Treći mehanizam kojim EI može poboljšati radni učinak osoblja sa niskom kognitivnom inteligencijom tiče se uticaja emocija na razmišljanje i delovanje, pri čemu viši nivoi EI podstiču ličnu motivaciju i kvalitetnije donošenje oduka [2].

Pravilnom upotrebom strategija za rešavanje emocionalnih izazova mogu se značajno unaprediti sposobnosti zaposlenih za rešavanje korisničkih problema i ublažiti njihov emocionalni napor. Tehnike kontrole emocija koriste se u zavisnosti od emocije o kojoj se radi, a autori Mihaljević i sar. predlažu nekoliko tehnika koje danas organizacije koriste u ove svrhe [12]: upotreba „tampon zone“, učenje „pokaznih“ pravila, programi pomoći zaposlenima, obrazovanje za tehnike rešavanja problema, unapređivanje EI, „deljenje znanja“ uključivanje emocionalnog rada u evaluacionu procenu performansi zaposlenih i dr. (detaljno na: www. mindtools.com).

Sumirajući rezultate velikog broja studija koje su ispitivale korelacije između nivoa EI i performansi posla, uglavnom u uslužnim delatnostima (korišćeni su različiti metodi procene ovih odnosa - objektivni metodi zasnovani na sposobnostima, metode samoprocene i procene kolega i mešoviti modeli) O'Boyle i saradnici su došli do zaključka da je ogromna većina studija pronašla direktnu vezu i jak uticaj faktora elemenata EI na učinke i izvođenje posla [14].

6. ZAKLJUČAK

Sa bilo kog aspekta da se posmatra, EI je neodvojiva od kognitivne inteligencije, obe su neodvojive od ličnosti, dopunjavaju se i prepliću, tako da su i jedna i druga prediktori kompetencija i performansi u svim oblastima ljudskog delovanja, a uslužna industrija je bezgraničan poligon njihovog ispoljavanja.

Emocionalni sadržaj sastavni je deo uslužnog susreta i same usluge. Viši nivoi EI uslužnog osoblja vode većem zadovoljstvu, poboljšanoj motivaciji, lakšem savladavanju stresova, podržavaju i poboljšavaju kognitivnu inteligenciju, mogu je nadomestiti, naročito u poslovima koji zahtevaju niže nivoe kognitivne inteligencije, i učiniti performanse ovih poslova dosta višim. EI bitna je, kako za lidere, tako i za zaposlene prve linije, ali i osoblje u pozadini, potrošače i sve učesnike uslužnih interakcija. Opšte je prihvaćeno da se njene veštine mogu učiti i trenirati, tako da je to polje koje pred uslužne organizacije stavlja stalne izazove od regrutovanja i selekcije, preko obuka do stvaranja i negovanja opšte klime kvalitetnih međuljudskih odnosa.

LITERATURA

[1] Bar-On, R. (1997) The Emotional Quotient Inventory (EQ-i). *Technical manual*. Toronto: Multi-Health Systems, Inc.

[2] Côté, S. Miners. C. T. H. Emotional Intelligence, Cognitive Intelligence, and Job Performance. na: https://doi.org/10.2189/asqu.51.1.1

[3] Davis, K, Christodoulou, J. Seider, S. Gardner, H. The Theory of Multiple Intelligences. (2012) na: https://howardgardner01.files.wordpress.com/2012/06/443-davis-christodoulou-seider-mi-article.pdf

[4] Emmerling, D. Goleman, D. (2003) Emotional Intelligence, Cognitive intelligence and job performance. The Consortium for Research on Emotional Intelligence in Organizations. na: http://www.eiconsortium.org/pdf/EI_Issues_And_Common_Misunderstandings.pdf

[5] Erdeji I. (2017) Individualni i organizacioni prediktori prosocijalnog ponašanja zaposlenih u sektoru turističkih krstarenja. *Doktorska disertacija.* Univerzitet u Novom Sadu, Prirodno-matematički fakultet departman za geografiju, turizam i hotelijerstvo

[6] Goleman, D. (1995) *Emotional intelligence.* Bantam Book.

[7] Karim, J. (2011) *Emotional Intelligence: A Cross-Cultural Psychometric Analysis*. Doctoral dissertation. Universite de Paul Cezanne, Aix-Marseille III, Institut D'Administration des Enterprises

[8] Levitas, Z. Vigoda-Gadot, E. (2017) Yours emotionally: How emotional intelligence infuses public service motivation and affects the job outcomes of public personnel. *Public Administration*. John Wiley & Sons Ltd 2017;95:759–775

[9] Mattila, A. S., & Enz, C. A. (2002). The role of emotions in service encounters. (Electronic version). Retrieved 1.03.2019. from Cornell University, School of Hotel Administration site: http://scholarship.sha.cornell.edu/articles/618

[10] Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence,* 27, 267-298.

[11] Mayer, J. D. Salovey. P. (1997) What is emotional intelligence. In Salovey, P. Sluyter, D, *Emotional Development and Emotional Intelligence: Educational* Implications (2010): 3-31.

[12] Mihaljević, A. Rafajac, O. Poljac, K. Upravljanje emocijama u uslužnim djelatnostima *Zbornik Veleučilišta u Rijeci*, Vol. 4 (2016), No. 1, pp. 59-78

[13] Mirković, B. (2016) *Socio-psihološki činioci odgovornog organizacionog ponašanja. Doktorska disertacija*. Univerzitet u Beogradu, Filozofski fakultet.

[14] O'Boyle JR., E. Humprey, R.H. Pollack, J.M. Hawver, T.H Story, P.A. The relation between emotional intelligence and job performance: A meta-analysis *Journal of Organizational Behavior* Vol. 32, No. 5 (JULY 2011), pp. 788-818

[15] Salovey, P., Bedell, B.T., Detweiler, J.B., & Mayer, J.D. (2000). *Current directions in emotional intelligence research.* In M. Lewis & J.M. Haviland-Jones (eds.): *Handbook of emotions* (2nd edition, pp. 504-520). New York: Guilford.

[16] shodhganga.inflibnet.ac.in/bitstream/10603/13564/8/08_chapter%201.pdf

[17] Takšić, V. Mohori, T. Munjas. Emocionalna inteligencija: teorija, operacionalizacija, primjena i povezanost sa pozitivnom psihologijom. Društvo istraživača Zagreb. god. 15 (2006), BR. 4-5 (84-85), str. 729-752

[18] Won, M.H., Tae, W.M, Yeon, S.Y. Customer response to employee emotional labor: the structural relationship between emotional labor, job satisfaction, and customer satisfaction. *Journal of Services Marketing* Volume: 29 Issue: 1, pp.71-80

KNOWLEDGE MANAGEMENT IN DISRUPTIVE TIMES

Sandra Lovrenčić[1]
Vlatka Sekovanić[2]

DOI: https://doi.org/10.31410/EMAN.2019.373

Abstract: *In the era of big data and fast changing markets, timely information and knowledge for making business decisions make a competitive advantage. Rapid changes cause disruption of organizations, especially new information technologies and organizations that are born digital. To cope, many organizations undergo digital transformation and change their business models. In such conditions, knowledge management is more important than ever, but the question is whether companies recognize its large potentials, from supporting digital business and digital workforce to preserving and delivering critical knowledge at any time. In this paper we discuss benefits that knowledge management can give organizations in disruptive times together with issues and challenges that arise. Also, an overview of new information technologies that may be incorporated into knowledge management systems and contribute to those benefits is presented, such as technologies connected to artificial intelligence. This leads to examination how disruptive times and technologies change knowledge management itself and whether and how they affect processes of creating, managing, sharing and using organizational knowledge.*

Keywords: *knowledge management, information technology, organization disruption, disruptive technology, disruptive times.*

1. INTRODUCTION

Many factors influence success of an organization on the market that is constantly changing. Business decisions should be made according to timely information and knowledge, because they minimize the risk and uncertainty. One of important factors to consider is disruption of organization. According to Cambridge Dictionary [1] verb *to disrupt* means "to prevent something, especially a system, process, or event, from continuing as usual or as expected" and its special meaning in business is "to change the traditional way that an industry operates, especially in a new and effective way". There are many ways in which disruption can occur, but today is frequently caused by new emerging technologies that change how the business processes are conducted.

To be successful in continuous environmental changes and possible disruptions, organizations must have access to relevant and up-to-date knowledge, where the major role plays implementation of knowledge management (KM). Quality management systems – Requirements standard, ISO 9001:2015 [2] also emphasizes the importance of determining knowledge important to organization, acquiring it from external and internal sources, maintaining it and making it available for operation of business processes. To achieve all those requirements, knowledge management is closely connected to information technology, especially to artificial intelligence, with various prospects of its usage.

This paper is structured as follows. In Chapter 2 is given an overview of development of knowledge management and its pillars. Chapter 3 describes well known and used knowledge man-

1 University of Zagreb, Faculty of organization and informatics, Varaždin, Croatia
2 University of Zagreb, Faculty of organization and informatics, Varaždin, Croatia

agement technologies. Disruption of organization is presented in Chapter 4 and the connection and role of knowledge management in overcoming disruption in Chapter 5. New important knowledge management technologies are described in Chapter 6, whereas Chapter 7 concludes the paper.

2. KNOWLEDGE MANAGEMENT

The term knowledge management is well known and used for several decades. It was researched both in general and for application in specific fields and covers all processes related to manipulation of knowledge and information in organizations: creating, managing, sharing and using [3]. Development of the field has undergone several stages (or phases) that were concentrated on the following [4], [5]:

1992-1995, Information technology. In the first stage, with emergence of personal computers and Internet, the accent was on information technology, because it offered various possibilities to store and manipulate larger quantities of information and specially to share knowledge more effectively and faster.

1995-2002, Human and cultural dimension. The second stage is characterized with recognition that information technology cannot provide solution if people don't use it to create, manage, share and use knowledge, which is why the concept of knowledge management should be incorporated into organizational culture.

2002-2008, Content and reliability. The content of the knowledge management system, the structure of knowledge and its availability to the person that needs it when it needs it is the main consideration of stage three, when important topics became content management and taxonomies.

2008-now, Access to external information. Stage four has no clear delineation and it is characterized with inclusion of knowledge available in the environment of the organization into knowledge management systems that mostly contained internal knowledge.

Each stage just added new emphasis that was not properly taken into account in earlier phases and contributed to maturation of knowledge management.

Information technology was the first important part of knowledge management and still stays one of main elements. It is depicted as one of four pillars that support knowledge management in a well-known representation of knowledge management that can be seen in Figure 1. The four pillars are [6], [7]:

Leadership – includes various elements connected to the management of organization and human resources, such as organizational culture that was emphasized in stage two of knowledge management development;
Organization – tackles business processes and procedures in organization, as well as various metrics that measure performance and quality and the use of knowledge for their improvement;

Technology – lists various information technology and systems that enable and support all processes of knowledge management through knowledge lifecycle in organization;

Learning – gives accent on continuous education and lifelong learning as well as on importance of innovation and collaboration that foster knowledge sharing and exchange throughout the organization.

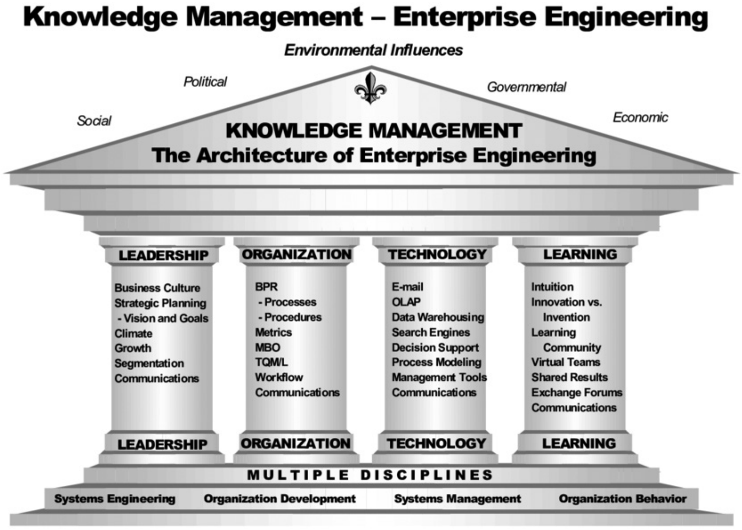


Figure 1: Four pillars of knowledge management [6, p. 6]

As can be seen in Figure 1, communication is listed in all four pillars, which accentuates its importance for knowledge flow at all levels and aspects of organization. Also, on the "roof" are listed environmental influences on knowledge management that can be political, social, governmental and economic. At the bottom are multiple disciplines that include elements from all pillars. Of course, those disciplines are today somewhat different than in 1999, when the representation was made, for example, instead of organizational behavior there is cognitive psychology. Figure 1 clearly shows all intertwined elements that are part of or influence on a knowledge management system.

3. KNOWLEDGE MANAGEMENT TECHNOLOGIES

There are many technologies that are connected with knowledge management and most of them are well known since the first stage of its development. They support one or more processes and mechanisms that organizations use to maximize the utilization of knowledge. Mechanisms are "organizational or structural means used to promote knowledge management" [8]. For example, a meeting is a mechanism and can be supported with some technology (communication tool) if participants are at different parts of the world.

"Standard" knowledge management technologies that are used as part of knowledge management systems are, for example:

- **Databases** – they are used for storage and retrieval of collection of structured data, information and knowledge in a tabular form and today are still mostly relational, although various NoSQL databases are gaining more attention, such as graph databases.
- **Data warehouses** – they differ from databases, because they provide access to data from different sources and multiple databases; they also support data analytics as a part of business intelligence, which enables decision making.

- **Data, text and web mining** – various mining techniques enable discovery of new information and knowledge from large amounts of data, which is today called big data; new knowledge is then visualized and stored.
- **Content management systems (CMS)** – applications that support content creation and management (organizing, editing, publishing) as well as collaboration of multiple users, often for web publishing.
- **Document management systems (DMS)** – they somewhat overlap with CMS, but are used specifically for management of documents and ensure tracking, indexing, storage, retrieval, versioning…
- **Decision support systems (DSS)** – information systems that support decision making processes in organizations and therefore must contain knowledge base, reasoning mechanism and user interface; examples are knowledge-based systems or case-based systems.
- **Lessons learned systems** – systems that capture and store lessons from former business operations important for future activities of organization; lessons must be easily compared with future cases and, if needed, implemented into procedures.
- **Expertise localization systems** – systems that are aimed at easily finding experts for specific tasks within organization, so that their knowledge will be accessed more quickly when needed.
- **Social networks** – online platforms where various social connections can be made and mostly used for marketing and knowledge sharing and exchange among individuals or groups.
- **Blogs** – websites that give information about some topic in the form of diary and may be open for comments, also mostly used for knowledge sharing.
- **Wikis** – websites with multiple collaborators used specifically for providing various and detailed information about some topic.
- **eLearning** – systems aimed for learning with the help of electronic resources using various technologies and multimedia, with an excellent opportunity for sharing knowledge.

4. DISRUPTION OF ORGANIZATION

Word *disruption* is often mentioned today in a connection to business and organizations. Various factors can cause this disruption, such as internal company dynamics (size, management), product lifecycle shift or industry discontinuities that influence competitive advantage (regulations, economy, technology) [9]. Emerging information technologies are disruption that is mentioned very often and they have been researched as such since 1995 [10].

Disruptive innovation is another term that is often mentioned. It is defined as innovation that starts with less-demanding customers or creates new market and become mainstream when quality is considered good enough for demanding customers [10]. According to this theory, Uber, that is often mentioned as disruptive, does not fit the profile, because taxi market existed before and they were not aimed at less-demanding customers. On the other hand, organizations born digital can be considered as disruptors, because their business models were different from the beginning and they opened a new online market. Most prominent example is Netflix. At first, it offered online orders with a several day’s delivery via mail, but when it developed a fully online market with streaming, instant delivery, lower price and higher quality, it caused a major disruption to video and CD rentals.

The time that emerging information technologies need to become mainstream is becoming shorter, due to continual and fast innovation processes. To adopt them and stay competitive, organizations must inevitably change their business models. They are mostly aware of disruptive technologies, they know which are most important in their industry, but are not sure whether they are prepared properly, and a research showed that for this preparation organizational (digital) culture and experts are very important [11]. Each organization also has to decide whether it will be bystander or active participant, whether it will cope with digital disruption or maybe cause and lead it.

The commonly suggested answer to successfully overcome disruption, especially disruptive technologies, is *digital transformation.* It represents a transformation of business strategy and organizational activities and processes, with implementation of various information technologies and with the purpose to improve performance and delivery of products or services to customers. Although it is one of main concerns for organizations in 2019, it should not be focused on technology – the main factors of its success and of selection of digital tools are business strategy, employee knowledge and expertise, customer needs and agile decision making [12]. Therefore, before deciding which information technologies to implement and how they will be used, organizations need to consider various factors that indicate the connection to knowledge management.

5. THE ROLE OF KNOWLEDGE MANAGEMENT

There are four pillars of knowledge management that are presented in Chapter 2, and there are also seven pillars of digital transformation. Since digital transformation is considered to be important for organizations to overcome disruptions, especially those connected to technology, as discussed in Chapter 4, here will be explained connection of those two pillars, that actually shows why it is important for organizations to give special attention to knowledge management in disruptive times and when they enter digital transformation.

Seven pillars of digital transformation are [13], [14]:

- Experiences – both experiences of customers (behaviors, expectations, satisfaction) and of employees (organization culture, efficiency, technology support) are important factors when deciding about investments in new technologies and conducting a process of digital transformation;
- People – experts in the field are important, but all employees are valuable and technology should make their work easier and help them to connect, learn and share;
- Change – transformation is continuous change and all employees should know what is expected, accept it and be included in the process;
- Innovation – transformation is triggered by innovation, which can be small, but also large and disruptive;
- Leadership – the success of transformation depends on management, that must incorporate it in business strategy, support it at all levels and effectively communicate it throughout organization;
- Technology – new innovative technology is important part of digital transformation, but it must be implemented in accordance with other pillars to enable a competitive advantage of organization;
- Culture – all above pillars are creating organizational culture that should be open to change and digital transformation, with people at its center.

Those seven pillars can be very easily connected to four pillars of knowledge management, which is depicted in Figure 2.

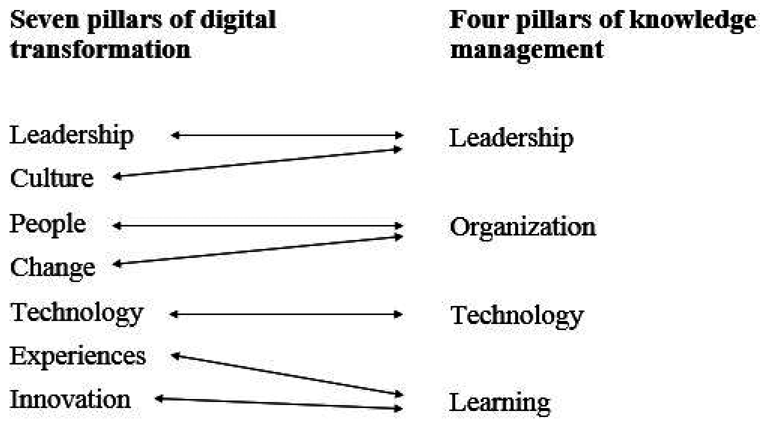


Figure 2: Connection of digital transformation and knowledge management pillars

Leadership is included as a pillar both in digital transformation and knowledge management, and a culture can also be connected with it, because leadership influences how organizational culture will be developed. Organization as a pillar of knowledge management is connected to people and change. People are the most important asset of organization and the change depends on them and includes them. Technology is obviously important part on both sides, and can support new forms of conducting a business, such as digital business or digital workforce. Last knowledge management pillar, learning, can be connected to experiences because they help organization to learn from them, and also to innovation, because learning leads to innovation, but innovation also enables learning. It is obviously that pillars of digital transformation and knowledge management can be viewed as the same or at least very similar and that knowledge management is inseparable part of digital transformation. Of course, the right technology should be implemented to foster all other pillars on both sides.

It is obvious that one of the main issues is that technology should never come first and managers must be aware of this when they start the digital transformation. Also, the most important part and challenge, mentioned several times above, is organizational culture that must be transformed itself to support the changes. The process of digital transformation is continuous and includes all parts of organization and therefore must be supported at all of its levels and within knowledge management system.

6. NEW TRENDS FOR KNOWLEDGE MANAGEMENT

There are many new technologies that can provide improvements in knowledge management, although they are not originally intended for it [15], and help the process of digital transformation of organization. In fact, enlargement of quantity of data that has to be put to use, such as from big data and internet of things, inevitably influence the change in knowledge management systems, since KM has to adopt new technologies in order to continue to manage organizational knowledge effectively [16]. A survey from 2015 showed that in this process communication and promotion of knowledge sharing still stay as top priorities and that organizations expect in next three years that following technologies will impact knowledge management: big data and analytics, semantic technology and natural language processing, and machine learning and cognitive computing [17].

Some of most prominent emerging information technologies that knowledge management should make advantage of are:

- **Big data analytics** – the use of various analysis techniques and methods to find patterns in large volume of data of various types and from various sources so that organizations could make faster and better decisions and develop new products or offer new services; it can also include collection, organization and visualization of data.
- **Machine learning (ML)** – a technology that enables predictions and decisions based on algorithms and statistical models without the need of explicit programming, but on the basis of learning from sample data; can be part of big data analytics.
- **Natural language processing (NLP)** – the field that is investigating human-computer interaction, and develops techniques that enable understanding and manipulation of human language; usually includes text analytics and sentiment analysis.
- **Cognitive computing** – it is comprised of various technologies, including all mentioned above, to mimic the function of a human brain and therefore improve decision making.
- **Augmented reality (AR)** – represents interactive display of environment that is augmented by computer generated information; it can make additions to reality or mask it.
- **Internet of Things (IoT)** – includes everything that is embedded with various electronics that enable connectivity to Internet; the source of large amounts of valuable data that is gathered with, for example, sensors.
- **Smart machines** – machines embedded with various devices that include above mentioned technologies and enable self-learning, for example robots or self-driving cars; they are one of most disruptive technologies.
- **Semantic technology** – a technology that gives meaning and relationships to data using formal semantics and includes various standards and languages to develop ontologies (knowledge bases, knowledge graphs) and reason over them, with the purpose for machines to process and retrieve information based on meaning and logic.

Common to all these technologies is *artificial intelligence (AI)*, the area of computer science that studies intelligent agents and whose goal is to develop intelligent machines that can perform tasks such as reasoning, problem solving, learning and planning. Artificial intelligence is well known and it has been in the focus of research for many years, getting more and more attention. It includes many technologies and has overlapping fields with other areas, and all above mentioned technologies are fully or partially part of it. Also, the basis of both artificial intelligence and knowledge management is knowledge and therefore different AI technologies can foster all KM processes that are dealing with creating, managing, sharing and using organizational knowledge [8]. Implementation of those technologies enables faster discovery of critical knowledge from data, faster data analysis, support directly to decision making process, better knowledge sharing and consequently improvements in products and services. Any of new technologies can be useful in knowledge management. For example, augmented reality can be used in the form of smart glasses for employees that can instantly show information about co-workers and in that way influence socialization and sharing.

Interesting example is the use of conversational artificial intelligence (chatbot) within knowledge management system and benefits of such system are represented in Figure 3.

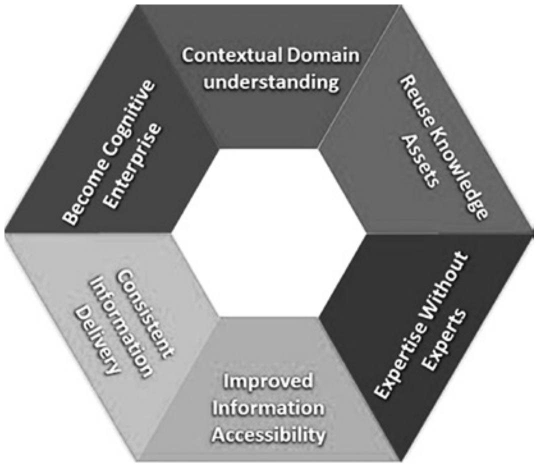


Figure 3: 6 Advantages of Building conversational AI around KM [18]

Chatbot can have contextual domain understanding if it is based on ontology and can reuse knowledge assets as conversational knowledge and make expertise knowledge widely available, where virtual assistant ensures better and consistent access to information thus leading organization to become cognitive enterprise [18].

7. CONCLUSION

Knowledge management is more important than ever in disruptive times for organizations and can be used to successfully conduct digital transformation. On the other hand, as the organization itself is disrupted by various factors, including emerging information technology, this disruption also influences knowledge management. Knowledge management system must support the processes of creating, managing, sharing and using knowledge that is obtained from increasing amounts of data and should be available as soon as possible. This means implementation of new technologies that can ensure that those processes can be carried out effectively. Many of those technologies are part of artificial intelligence and therefore it has large role in future of knowledge management and digital transformation.

However, the pillars of knowledge management and digital transformation, as well as other research, show that the most important factor in successful management of an organization and adaptation to changes are people. No matter which technology we implement, people are still the driving force of an organization and managers must carefully form the organizational culture to ensure support for necessary changes.

REFERENCES

[1] Cambridge University Press. (2019) disrupt. *Cambridge Dictionary*, Retrieved 07.03.2109. from https://dictionary.cambridge.org/dictionary/english/disrupt
[2] Kahler, T., Gross, D., Bredehorst, B., Ulrich, D. (2016) *Organizational Knowledge: DIN EN ISO 9001:2015 interpreted and explained for practical use* (Research report no. 15.R.004), Pumacy Technologies AG., Berlin, pp. 8-10.
[3] Girard, J., Girard J. (2015) Defining knowledge management: Toward an applied compendium. *Online Journal of Applied Knowledge Management*, 3(1), pp. 1-20. Retrieved

23.06.2017. from http://www.iiakm.org/ojakm/articles/2015/volume3_1/ OJAKM_Volume3_1pp1-20.pdf
[4] McInerney, C. R., Koenig, M. E. (2011) Knowledge management (KM) processes in organizations: Theoretical foundations and practice. *Synthesis Lectures on Information Concepts, Retrieval, and Services*, 3(1), pp. 1-96.
[5] Milanović, Lj. (2010) Korištenje informacijske tehnologije za upravljanje znanjem u hrvatskim poduzećima. *Zbornik Ekonomskog fakulteta u Zagrebu*, 8(2), pp. 195-211. (In Croatian).
[6] Stankosky, M. A. (2005) Advances in Knowledge Management: University Research Toward an Academic Discipline, In (M. A. Stankosky, ed.) *Creating the Discipline of Knowledge Management*, Routledge, New York, New York, pp. 1-14.
[7] DiGiacomo, J. (2003) *Implementing knowledge management as a strategic initiative* (Master's Thesis), Naval Postgraduate School, Monterey, California, pp. 7-12, 23-29. Retrieved 05.02.2019. from https://apps.dtic.mil/dtic/tr/fulltext/u2/a420493.pdf.
[8] Becerra-Fernandez, I., Sabherwal, R. (2010) *Knowledge management: systems and processes*, M.E. Sharpe, Inc., Armonk, New York, pp. 38-70.
[9] Cummings, T. G., Worley, C. G. (2008) *Organization development and change*, 9th edition, South-Western Cengage Learning, Mason, Ohio, pp. 505-534.
[10] Christensen, C. M., Raynor, M. E., McDonald, R. (2015) What Is Disruptive Innovation? *Harvard Business Review*, December 2015, pp. 44-53.
[11] Kane, G. C., Palmer, P., Phillips, A. N., Kiron, D., Buckley, N. (2016) *Aligning the Organization for Its Digital Future* (Research Report), MIT Sloan Management Review, Cambridge, Massachusetts (with Deloitte University Press), July 2016, pp. 1-27.
[12] Tabrisi, B., Lam, E., Girard, K., Irvin, V. (2019) *Digital Transformation Is Not About Technology*, Retrieved 18.03.2109. from https://hbr.org/2019/03/digital-transformation-is-not-about-technology.
[13] Newman, D., Blanchard, O. (2017) *Futureproof: 7 key pillars for digital transformation success*, Broadsuite Inc., Naperville, Illinois, pp. 9-194.
[14] Newman, D. (2018) *Understanding The Six Pillars Of Digital Transformation Beyond Tech*, Retrieved 11.02.2019. from https://www.forbes.com/sites/danielnewman/2018/05/21/understanding-the-six-pillars-of-digital-transformation-beyond-tech/#536af2cb3f3b
[15] Mašić, B., Nešić, S., Nikolić, D., Dželetović, M. (2017) Evolution of knowledge management. *Industrija*, 45(2), pp. 127-147., Retrieved 07.02.2019. from https://scindeks-clanci.ceon.rs/data/pdf/0350-0373/2017/0350-03731702127M.pdf
[16] Peinl, R. (2017) Knowledge Management 4.0 – Lessons Learned from IT Trends. *Tagungsband der 9. Konferenz Professionelles Wissensmanagement (Professional Knowledge Management)*, FZI Forschungszentrum Informatik, Karlsruhe, Germany, pp. 112-117. Retrieved 07.03.2019. from http://ceur-ws.org/Vol-1821/W4_paper1.pdf.
[17] APQC (2015) *2015 Knowledge Management Priorities* (Executive Summary), Retrieved 04.02.2019. from https://www.apqc.org/knowledge-base/download/340305/K05834_2015_KM_Priorities_ExecSum.pdf
[18] Joseph, S. (2019) *Why Enterprises Need to Focus on Knowledge Management When Implementing AI*, Retrieved 27.03.2019. from https://chatbotslife.com/why-enterprises-need-to-focus-on-knowledge-management-when-implementing-ai-2dba140550e2

ANALYSIS OF EFFECTS OF CHANGES IN REGULATORY REQUIREMENTS FOR DISCLOSURES ON THE FINANCIAL AND NON-FINANCIAL REPORTING OF COMPANIES

Mirjana Hladika[1]
Eugen Lacković[2]

DOI: https://doi.org/10.31410/EMAN.2019.383

Abstract: *Strong competition in all segments of the economy requires companies to adapt more quickly to market demands and market participants. In such an environment, companies are required to adapt the decision-making and management process. At the same time, stakeholders demand a wider range of information for making business decisions. The public is increasingly loud and emphasizes the awareness and the need for corporate social responsibility, the need for environmental protection and human rights. In order that all stakeholders (investors, creditors, suppliers, current and future employees and others) will have a more complete insight into the operations of a particular company, beside financial reporting, the non-financial reporting is becoming more and more important. Non-financial information enables different stakeholders to see more clearly the impact of a company's operations on society as a whole, the environment, and the economy within which it operates, apropos to create a clearer picture of how each individual company creates value. Non-financial information, along with financial information, represents a more quality information base for short, medium and long-term business decisions. In order to regulate the non-financial reporting, the European Commission by Directive 2014/95/EU has prescribed the preparation of the non-financial report for certain entities for the reporting periods beginning on 1 January 2017. In that effect, the aim of this paper was to investigate whether the changes in regulatory requirements for the disclosures of financial and non-financial information affected a more transparent and comprehensive presentation of information about the companies' business. The research was conducted on the basis of the analysis of secondary data sources, primarily published non-financial information on the company's website and in their annual reports. Research sample consists of five companies from five different EU countries. Published secondary data were analyzed in qualitative and quantitative terms using comparative and compilation methods and methods of analysis and synthesis. The research results showed that non-financial reporting was not standardized, and that the introduction of legal obligation for non-financial reporting did not affect the scope and presentation of non-financial information. The main reason for this research results can be the fact that the observed companies, already before the introduction of this obligation, realized the significance and importance of non-financial reporting.*

Keywords: *Non-financial reporting, Directive 2014/95/EU, Transparency of business, Corporate social responsibility*

1. INTRODUCTION

Information about the company's business is the basis for making various business and investment decisions both for internal and external users. For many years, companies have informed their stakeholders about their business solely through financial statements, or only in the form of financial information. During the past twenty years, the awareness of the interested users (investors, employees, customers, suppliers, state and others) has been strengthened that the informa-

[1] Faculty of Economics and Business, University of Zagreb, Trg J.F. Kennedy 6, 10000 Zagreb, Croatia
[2] KPMG, Ivana Lučića 2, 10000 Zagreb, Croatia

tion in the financial statements is insufficient to understand and illustrate the entire business of a particular company [1]. Financial statements contain information on the financial position, the financial performance and the cash flows of the company incurred in the reporting period as a result of management decisions. However, from the information that is presented in financial statements is not seen how the company creates added value, that is, how the company's everyday business relates to the environment, employees and society as a whole and to the economy in which it operates, nor it is clear whether the company's current management system ensures its sustainability in the long run. For these reasons, the regulator sought to fill gap in reporting of the company in order to meet the information needs of all stakeholders. The European Parliament and the Council of the European Union have adopted Directive 2014/95/EU amending Directive 2013/34/EU as regards disclosure of non-financial information and diversity information by certain large undertakings and groups [2], whose main purpose is to increase the transparency, consistency and comparability of non-financial information or information about corporate social responsibility. It is important to point out that the European Union is the first largest economy in the world that has set a regulatory obligation for non-financial reporting. According to Directive 2014/95/EU, non-financial reporting is primarily directed towards the publication of information related to environmental matters, social and employee-related matters, as well as issues related to respect for human rights, the fight against corruption and bribery. The aim of this paper is to examine whether changes in regulatory requirements for disclosure of financial and non-financial information have led to a more transparent and comprehensive view of information about the company's business.

2. SIGNIFICANCE OF FINANCIAL AND NON-FINANCIAL REPORTING IN MODERN BUSINESS ENVIRONMENT

The high quality of corporate reporting system functions in a way that effectively reduces the information asymmetry between internal and external users, and supports the efficient allocation of information among participants in the financial market. Today, most stakeholder's business and investment decisions are based not only on financial but increasingly on non-financial information. It is important for stakeholders to be timely informed, and information should be reliable and comprehensive, thereby boosting public confidence in the company. Reliable and timely information on participants in the financial market contributes to the stability of the financial market. As the initiators of the need for corporate social responsibility are quoted growing environmental pollution, insufficient resources and the challenges of globalization [3].

2.1. Publication of financial and non-financial information

Reporting and publishing information about the company's business may be voluntary or compulsory. The regulatory framework specifies the minimum information that are required by all companies in each country, while the supervisory authorities may prescribe additional information that have to be disclosed by the financial market participants. In this section, it is primarily about financial information. For a number of years, only the publication of financial statements was mandatory. However, the companies have seen their benefits by making voluntary disclosure of numerous non-financial information over the mandatory disclosure of financial information [4]. Also, from the stakeholders' perspective, the financial statements do not provide all the information needed for evaluation the company's business and they need an additional information [5], [6].

Financial reporting is mandatory, standardized and regulated by numerous laws and bylaws, and financial statements are published on prescribed forms. However, non-financial reporting

is not yet standardized and it was voluntary for many years. The move towards the introduction of the obligation for preparation of the non-financial report was made in 2014 by adopting the Directive 2014/95/EU. The application of Directive 2014/95/EU is obliged for large companies that are public interest entities and which on the balance sheet date exceeds the criterion of an average number of 500 employees. The application of Directive 2014/95/EU started from January 1, 2017. The framework that is used for the preparation of the non-financial report is not the same for all companies. When company prepares information for the purposes of compiling its non-financial report, it can be used different internationally recognized frameworks, such as the Global Reporting Initiative Standards (GRI), Integrated Reporting (<IR>), Guidelines for Multinational Enterprises from the Organization for Economic Co-operation and Development (OECD), the International Organization for Standardization ISO 26000, the United Nations Global Compact (UNGC) or others [1]. Different frameworks that can be used for the preparation of non-financial report show that non-financial reporting is still not standardized. In that sense, the compilation of a non-financial report largely depends on management's willingness to cover the scope of non-financial information which it wants to publish about the company. So, the regulator should set more precise and more specific reporting requirements in order to enable the comparability of non-financial information.

The most popular channels of company's communication with the users are the Internet and the company's website [7]. Presentation of financial and non-financial information over the Internet, especially through the company's website, enables timely information to stakeholders, at the time when information is generated and without delay of its publication. It is important to point out that information can be presented in the form of different reports, but also in the form of different presentations, or video clips about the company. In order to be user-friendly and for the purpose of easier reading, information is also often presented in the form of different tables, pictures and charts. The non-financial report is most frequently published as an integral part of the company's annual report; also, all other information that is voluntarily disclosed by the company is published in the annual report [8].

2.2. Benefits of publishing financial and non-financial information

Financial information presented in the financial statements shows the financial position, business performance and cash flows of the company realized over a reporting period. Such information points out the financial effects of business and investment decisions of managers in the reporting period. However, the market value of a company is largely determined on the basis of non-financial information, where [9] up to 80% of the company's market value does not have to be the result of financial information presented in financial statements, and that non-financial information has a significant impact on the creation of company's value. According to [10], corporate social responsibility and company's disclosure about it contributes to increasing the company's value. Publishing of non-financial information over a longer period contributes to strengthening stakeholders' confidence in the company, but also contributes to the stability of the market value of shares of the company. Furthermore, disclosure of non-financial information leads to lower borrowing costs [11]. Companies that publish non-financial information and thus improve transparency about their business have a significantly greater potential for more accurate forecasts of future earnings compared to companies that publish a very small number of non-financial information [12]. Publishing non-financial information in corporate social responsibility reports affects the company's reputation and can contribute to improving the company's image [13].

3. SAMPLE AND RESEARCH METHODOLOGY

The European Union is a good example of an economic association with differently developed economic systems. By improving the existing and developing the new regulatory framework, the European Union is continuously developing and integrating the European financial market, with a special emphasis on the standardization of reporting of business entities. The latest reporting trends emphasize the importance of non-financial reporting through the introduction of an obligation for preparing the non-financial report for large business entities, which aims to improve the transparency of reporting of business entities that are operating in the international market. For this reason, the countries from the European Union represent an appropriate sample for the analysis of effects which the Directive 2014/95/EU, by prescribing the obligation to prepare a non-financial report, had on the greater transparency of business operations, i.e. the comprehensive financial and non-financial reporting of business entities in the European Union.

The research sample consists of five companies whose primary business is trade, and which headquarters are in five different European Union countries (France – Carrefour, Croatia – Atlantic Grupa, Spain – Mercadona, Sweden – Hennes&Mauritz and United Kingdom – Tesco). The research covers a five-year period (2013-2017).

In the research of the effects which the implementation of obligation for preparing the non-financial report has on the coverage and quality of the observed companies, were used secondary data published primarily on the web pages and in the annual reports of the observed companies. These data sources are considered appropriate since all the companies included in the research sample are using their web page as the primary channel of communication with stakeholders. The published data were analyzed in qualitative and quantitative terms, i.e. the types and number of published information were analyzed. The collected data are processed by appropriate scientific and research methods of synthesis and analysis, and by methods of comparing and compilation.

4. RESEARCH RESULTS AND DISCUSSION

Financial information is presented in financial statements, and it comprises an information on the financial position and financial performance of the company and its cash flows realized in the accounting period. Information that is important for investors is a share price and historical stock price information, dividend and equity information, information about the corporate debt, and a calendar of important events for shareholders and management. Non-financial information includes information on corporate profile and corporate governance (vision, mission, strategy), key business risks, business ethics, corporate social responsibility, environmental responsibility and environmental protection, relationship with partners (value chain maintenance), employee accountability, responsibility to the community, and more. It is important to note that all investors are to a large extent negatively respond to bad news, and the long-term value of the company is determined and depends on a large number of different factors.

Carrefour is publishing the report on social responsibility and corporate governance throughout the reporting period in its annual report. Prior to the implementation of Directive 2014/95/EU, non-financial reporting of Atlantic Grupa has included all requested non-financial information, so it can be concluded that changes in regulatory requirements for the disclosure of non-financial information did not affect the reporting of Atlantic Grupa. During the last ten years, Mercadona has reported the high-quality and comprehensive non-financial information related to business

operations, primarily in relation to the environment, the relationship with suppliers and employees, about human rights, and anticorruption. For more than ten years, Hennes & Mauritz is compiling reports containing non-financial information, so new regulatory disclosure requirements did not affect additional reporting because all of the requirements had already been met through existing company reports. Also, the new regulatory requirement for the publication of the non-financial report has not affected the Tesco's reporting since the importance and significance of this report has been recognized earlier, as it is seen through the observed periods and earlier when this company has published non-financial reports (under various names) since 2006. The results of this analysis are showing that the number of non-financial information is increasing during the observed period and that had an impact on greater volume (more pages) of the non-financial report, but such a trend was noted still before the introduction of Directive 2014/95/EU.

The comparison of the disclosure channels and presentation of non-financial information and reports, the frameworks that are applied for the preparation of the non-financial report of the observed companies is presented in Table 1.

Table 1: Comparative presentation of non-financial reporting
Source: author's processing by [14] - [18]

Company / ***Characteristic***	***Carrefour***	***Atlantic Grupa***	***Mercadona***	***H&M***	***Tesco***
Channels of disclosure of non-financial information	Website, annual report	Website, magazine Atlantic news, annual report	Website, annual report, biennial report on environmental impact	Website, annual report, and others reports within the year	Website, annual report, other unrelated reports
Submission of a non-financial report	Within the annual report - Social responsibility report	Independent GRI report, summary of this information presented in the annual report	Independent report sent to the UN Committee, and it is then published in the framework of the annual report	Independent report – Sustainability report, summary of information is published in the annual report	Special Strategic report which is also part of the Annual Report
Framework for disclosure of non-financial information	ISO 26000, and compliance with the OECD, UNGC, ILO, GRI framework	Until 2013 UNGC framework, since 2013 the GRI framework	UNGC framework	GRI and UNGC framework	Until 2015, partially according to the GRI framework, since 2015 according to the UNGC framework

The observed companies, as the primary channel of communication (about financial and non-financial information) with interested users, use the websites and other forms of Internet technology. The non-financial information of the observed companies is published within annual report and the interested users have easy access to this information. The observed companies (except Carrefour) have published independent non-financial reports, which are then incorporated in full or in a shortened form into the company's annual report. It was concluded that despite the fact that all companies included in research sample present non-financial information and

non-financial reports, this information includes similar thematic areas, but the form and manner in which the information is presented varies considerably between the companies included in research sample. Due to the fact that there is an obligation to prepare the non-financial report, but at the same time there is no prescribed structure and form for such reporting, it remains difficult to compare non-financial information between different companies. The observed companies use the GRI framework and/or some of the other frameworks for preparing the non-financial reports. Thus, the Carrefour's non-financial report is prepared according to six frameworks for non-financial reporting, and Mercadona's non-financial report complies only with the UN Global Compact framework. So, it is concluded that all the observed companies published non-financial reports in a certain way much before the Directive 2014/95/EU prescribed the preparation of the non-financial report (as of 1 January 2017).

5. CONCLUSION

Information about the company and company's financial result is presented to interested users in the form of financial and non-financial reports. Financial information is presented in publicly available financial statements, and for many years the financial statements have been the key and sole source of information on business operations. The purpose of the financial statements is to present to the users the financial position, financial performance and cash flows of the company over a given period. In modern business conditions where, amongst other things, a significant number of companies operate in the international market, harmonization of financial reporting has been achieved for many years, setting the basis for comparing the financial statements of the same company over several different accounting periods, as well as for comparing the financial statements of different companies.

In the time of globalization, modernization and automation of business, companies are increasingly focusing on other segments of business, and the public is showing interest in how companies gain added value. Such information is disclosed in the non-financial statements, and their objective is to indicate how the company refers to the society as a whole, the environment, its employees, the economy in which it operates, how ethical it is in its business, and other. Non-financial reporting becomes the common practice of almost all companies that are operating on the international market, but the structure and content of the non-financial statements are not prescribed and consequently there is not achieved the harmonization in the part of the non-financial reporting, which makes it difficult to compare non-financial statements between individual companies.

The research results showed that companies included in research sample have structured the presented non-financial information on a different way after the implementation the Directive 2014/95/EU. Accordingly, in the non-financial reports is disclosed separately non-financial information on human resources, the environment, waste and other issues, but in terms of coverage of the presented information there are not any changes before and after the implementation of Directive 2014/95/EU. The observed companies have reported information on economic and social issues and environmental issues during the research period. The approach that has been adopted by the companies included in research sample suggests that prior to the implementation of the obligation to prepare the non-financial report, they recognized the significance, importance and usefulness of non-financial reporting for different users. It can be concluded that the implementation of Directive 2014/95/EU in the national legislation of the observed countries has not affected the changes in the reporting of the observed companies.

Special attention in creation policies that will shape corporate reporting in future will need to be focused on confirming the coverage of company's final disclosures. The credibility of disclosure the non-financial information may be questioned if there is no opinion of an independent party who is officially confirming that presented information is to the extent adequate and accurate. Although confirming the non-financial information means a new cost for a company, it is necessary in order to make the overall picture of the company as credible for the final user of the report. In the research sample, only the United Kingdom requested auditors that in carrying out the audits to verify whether non-financial information published in the annual report was credible and consistent with the rest of the report.

REFERENCES

[1] Hladika, M., Valenta, I. (2017) Nefinancijsko izvještavanje prema zahtjevima Direktive 2014/95/EU, *Računovodstvo i financije,* Vol. LXIII, No. 7, pp. 39-44.
[2] European Parliament and the Council of the European Union (2014) *Directive 2014/95/EU amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups,* available on: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=EN
[3] Hladika, M., Valenta, I. (2017) Integrirano izvještavanje – nova platforma korporativnog izvještavanja, *Zbornik radova (Journal of Economy and Business),* Vol. XXIII, pp. 166-186.
[4] Tasker, S.C. (1998) Bridging the information gap: quarterly conference calls as a medium for voluntary disclosure, *Review of Accounting Studies,* Vol. 3, No. 1, pp. 137-167.
[5] Schuster, P., O'Connell, V. (2006) The trend toward voluntary corporate disclosures, *Management Accounting Quarterly,* Vol. 7, No. 2, pp. 1-9.
[6] Alwert, K., Bornemann, M., Will, M. (2009) Does intellectual capital reporting matter to financial analysts?, *Journal of Intellectual Capital,* Vol. 10, No. 3, pp. 354-368
[7] Uyar, A. (2012) Determinants of corporate reporting on the Internet: An analysis of companies listed on the Istanbul Stock Exchange (ISE), *Managerial Auditing Journal,* Vol. 27, No. 1, pp. 87-104.
[8] Al-Shammari, B. (2008) Voluntary disclosure in Kuwait corporate annual reports, *Review of Business Research,* Vol. 8, No. 1, pp. 62-81.
[9] Lev, B. (2001) *Intangibles: Management, Measurement and Reporting,* Washington, DC: Brookings Institution Press.
[10] Margolis, J.D., Elfenbein, H.A., Walsh, J.P. (2007) Does it pay to be good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance, *Working Paper.* Boston: Harvard Business School, available on: https://www.hks.harvard.edu/m-rcbg/papers/seminars/margolis_november_07.pdf
[11] Reverte, C. (2012) The impact of better corporate social responsibility disclosure on the cost of equity capital, *Corporate Social Responsibility and Environmental Management,* Vol. 19, No. 5, pp. 253-272.
[12] Gelb, D.S., Zarowin, P. (2002) Corporate Disclosure Policy and the Informativeness of stock prices, *Review of Accounting Studies,* Vol. 7, No. 1, pp. 33-52.
[13] Hildebrand, D., Sen, S., Bhattacharya, C.B. (2011) Corporate social responsibility: a corporate marketing perspective, *European Journal of Marketing,* Vol. 45, No. 9/10, pp.1353-1364.
[14] Carrefour, available on: http://www.carrefour.com
[15] Atlantic Grupa, available on: https://www.atlantic.hr
[16] Mercadona, available on: https://www.mercadona.es
[17] Hennes&Mauritz, available on: https://www2.hm.com/en_eur/index.html
[18] Tesco, available on: https://www.tescoplc.com

INTERNAL AUDIT OF COSTS IN A PUBLIC EDUCATIONAL INSTITUTION

Tatjana Horvat[1]

DOI: https://doi.org/10.31410/EMAN.2019.391

Abstract. *Public educational institutions are mostly financed by state, local communities and parents. Their main costs are costs of salaries, costs of material, costs of services and amortization. These costs are used for the day-to-day activities of the institution as well as for investments and investment maintenance. The costs should be, as required by law, carefully planned within financial plan and reported in annual report. Public educational institutions, including their costs, should be supervised by the internal auditor who ensures the legality of costs. The purpose of this paper is to show results of internal auditing of the costs' legality in a public educational institution, together with its specifics. Authors focused on Slovenian legislation and Slovenian case of pre-school educational institutions, which, due to use of public money and due to educating small children, must take care especially on using money and formation of costs. The findings can help management of a public educational institution together with internal auditors to understand the functioning of educational programs in the context of costs legality of incurred.*

Keywords: *costs, educational institution, internal audit, management.*

1. INTRODUCTION

In Slovenia, the formation of costs in public educational institutions is regulated by legislation, but we note the gap in concrete aspects of costing. It is also possible to detect the research gap on this subject in the literature to the best of our knowledge, as there are many articles on the quality of the audit.

The main costs in public educational institutions are wages, material, services and amortization. They are regulated by law and related regulations and by financial plans and internal acts of the organization. Internal audit of public finances is the obligation in Slovenian public institutions. Among the main tasks related to the internal audit are verification of internal controls and risks. As [1] state, the best method for checking internal controls within costs' spending is the framework COSO II. Other EU member states also have an internal and external control of finances in place [1]. COSO is an international operational framework or a tool for setting up and evaluation of the risks within an organization. It has been developed by Committee of Sponsoring Organizations of the TradeWay Commissions. As [2] state, the organization with a high-quality internal control in risks together with better auditing has higher opportunities for further development and existence. The COSO II auditing method identifies key components which should be carefully used in auditing. These are: control of environment, setting goals, recognition of risk events from management side, risk assessment, risk control, communication, and monitoring. As [3] state, the "components of an effective internal control system are described using the framework designed by COSO and have been selected because they have been identified as underpinning quality corporate governance«. As one of the studies shows, organization's management prefers working towards ensuring predictable costs [4], therefore we want to accurately illustrate the internal auditing of the correctness of costs.

1 University of Primorska, Faculty of Management, Cankarjeva 5, 6000 Koper, Slovenia

RESEARCH QUESTION AND METHODS

The following research question has been designed*: Which risks of costs do not comply with regulations for educational public institution?*

In our study we made internal auditing with using components within COSO II framework. We wanted to find out which risks could be hidden inside each component of COSO II, and which internal controls or actions should be taken by an organization in order to have costs in line with regulations. Risks within the sixth component of COSO II relate to specific costs of an organization, so we have identified potential specific risks in this component and checked them. Risks within other components have been determined with the help of regulation on internal control of public finances in Slovenia (in Slovenia the main regulations are Law on preschool educations, Public finance Act, Guidelines for State Internal Auditing, Rulebook on the methodology for pricing programs in kindergartens, Rulebook on norms and personnel conditions, Act for Accounting).

3. RESULTS

Below, the results of a singular study of an internal audit case of costs in a public educational institution in the first half of the calendar year 2018 are shown. The risks inside of each component of COSO II, together with the fact which internal controls or actions should be taken to reduce the risk of unregulated costs in the observed organization are exhibited.

First component of COSO II - Risk of internal environment:
In the organization, the following risks have been checked. At each risk, the activities or internal controls that we verified, have been recorded in order to verify whether the organization provided if the risk related to the illegality of the costs would not materialize.

- Risk of misallocation of authorization and responsibilities in the process of creation of organizational costs: It has been found out that the following internal acts are in place and adopted: act on the job classification system, the accounting rules, rules on circulation of accounting documents.
- Risk of unsettled system of replacing responsible persons in the process of creating costs within organization: It has been found out that a register of presence and absence is regulated.
- Risk of failure in performing tasks for implementing the objectives of the organization: It has been found out that the annual work plan, the financial plan, and the annual report, which all contain tasks for the implementation of the objectives, are adopted. This is also possible to be found out from the sample of the minutes of management board's sessions.
- The risk that the organizational structure, responsibilities and competencies of employees in the organization are not clearly defined: It has been found out that these are regulated in the adopted internal act on the job classification system.
- Risk of inadequate number of employees and qualifications for creation of organizational costs: Based on the number of enrolled children in the educational institution, it has been found out that the number of employees for the implementation of all activities and internal control procedures in the field of formation of the costs of organization's activities, is as it is required by the norms.

Second component of COSO II: Risk of inappropriate goals. Here, three additional risks have been checked:

- Risk of non-existence of long-term and short-term goals: It has been figured out that they are written in the development plan, in the annual work plan, in the educational plan and also in the financial plan of the organization.
- Risk of non-rescheduling of long-term and short-term objectives: Based on interviews and reviews of the main documents on the operation of the organization, we find that there are no interim reports on tracking the achievement of targets or other similar reports.
- The risk that the employees are not familiar with the long-term and short-term goals of the kindergarten: From the meeting minutes, conference minutes, annual work plan and pedagogical obligations, it has been found out that the employees are acquainted with these goals.

Third component of COSO II: The risk of not recognizing risky events by the management. Here one additional risk has been tested:

- The risk that management does not detect unwanted events related to the process of generating the costs of the activities as well as the proper use of organizational costs: It has been figured that these risks are defined in the risk register and in the annual report.

Fourth component of COSO II: Risk of inadequate risk assessment. Here, four additional risks have been checked:

- Risk that the organization does not yet have a risk register established: It has been figured out that the risk register had been produced and signed.
- Risk that the organization does not review and update the risk register: It has been figured out that the risk register has been updated since December 2017.
- Risk that the organization does not have a risk register within the audited area: It has been found out that the risk register has also been conducted on the legality of the organization's costs.
- Risks that employees, participating in organizational costs, are not aware of the risks associated with organizational costs: It has been found out that there are signatures of employees involved in the process of creating costs of activities, in internal acts and in the register of risks in the field of formation of costs within activities of the organization.

Fifth component of COSO II: Risk of inadequate risk assessment. Here, one risk has been checked:

- Risks that no specific risk response and neither internal controls on the legitimacy of organization costs are defined: It has been figured out that this is determined in the risk register, the annual report, the internal auditor's report of the previous year, as well as in the reports of other supervisory authorities (Budget Supervision Office, ...).

Sixth component of COSO II:

- Risk of inadequate controlling activities of the organization. Here, the risks in several phases of the legality of organization's costs have been checked: from cost planning, provision of cash for dedicated costs, and cash management up to the use of cash for legitimate costs defined by law [5]:

Initial phase: planning and preparation of bases for formation of cots:

- Risk of inadequate planning documents, meaning that the organization does not have planning documents: It has been found out that there are development plans, annual work plan, financial plans, and a contract with the municipality on financing activities.
- Risk of inadequate internal instructions / policies relating to the financing of activities, meaning that the organization does not have these instructions or policies: It has been found out that there are accounting rules, the rules on circulation of accounting documents, the act on the systematization of jobs, and the founding act.

Provision of cash funds:

- The risk that the provision of cash (claim settlement and maintenance) is not carried out in accordance with the financial plan: It has been found out that there is no formal evidence of this.
- The risk that an invoice is formally and / or in substance inadequate: It has been found out that invoices exist for the municipality, the ministry and the renter of premises, where the sample of invoice is formally and in substance compliant with the legislation.
- Risk of not sending invoices in a timely manner: It has been found out that there is a time record of invoices for the municipality, the ministry and the renter of the premises.
- Risk of incorrect recording and disclosure of funds received: It has been found out that there are adequate accounting records.
- Risk of no monitoring of money transfer: It has been found out that there are weekly printouts of inflows and outflows of amounts to the sub-account at the Public Payments Administration (hereinafter referred to as the PPA), where payment transactions take place.
- Risk of non-recovery of receivables from sent invoices: It has been found out that there are instructions on the recovery of claims and Prints of Open Call Forms.
- Risks that there are no records and adequate posting of receivables: It has been checked that there is a group of accounts named “12 - short-term receivables to customers” and instructions for the recovery of claims.

Cash management:

- Risk that the organization does not monitor the solvency and needs of the activity: It has been found out that there is no document containing records of plans and the realization of the cash flow plan.

Use of cash:

- Risk of unintentional use of cash: On the basis of documents and interviews has been found out that the authorizations and confirmations of the regularity of the underlying transactions have been established.
- The risk that the record of employees for the purpose of paying salaries is not complete and not signed: It has been found out that there are monthly records of employees, signed by the management of the organization.
- Risk of incorrect input of data as the basis for calculation of wages: It has been found out that software-program control is in place when entering data.
- Risk of irregularities in the payment of salaries and the recording of salaries in the general ledger: On the sample of salaries it has been found out that the correct calculation of salary is recorded in the general ledger.
- Risk of non-establishment of a record of collecting needs and procurement of material, small inventory and services for the performance of public services: It has been found out that a record of procurement of material, small inventory and services is provided for.

- Risk of receipt of invoices from suppliers without appropriate accompanying and validated documentation: Based on documentation and interviews, it is established that the authorizations and confirmations of the accuracy of the business events have been established, the separation of the duties of incompatible events with the internal rules has been established, and the management of the book of received invoices is in place.
- Risks in the payment of invoices to suppliers, such as failure to approve business events; incorrect input of data as the basis for paying invoices to suppliers; late payment: It has been found out that there are signatures for the authorization of business events; that on the sample of invoices correct entry of data is established which are the basis for payment of invoices to suppliers; Timely payments are identified on the sample of invoices.
- Risk of incorrect book-keeping of received supplier receipts: It has been found out that software-program control of data entry in analytical records and general ledger accounts is in place.
- Risk of incorrect book-keeping of paid suppliers' accounts: It has been found out that software-program control of payment orders for the PPA and the recording of material payments, fine inventory and services according to the rules for public educational institutions, are established.
- Risk of receipt of invoices from investment providers and investment maintenance without appropriate supporting documents and approved documentation: The sample of accounts showed that the authorizations and confirmations of the regularity of the business events have been established and that the management of the book of received invoices is in place.
- Risk of incorrect book-keeping of paid-in investment company accounts: Software-program control of payment orders for the PPA and record keeping of investment payments and investment maintenance according to the rules for public educational institutions has been established.

Final phase: Reporting:

- The risk that the content and dealing with the annual report are not in accordance with the regulations: Compliance of the content of the annual report with the legislation has been checked. It has been found out that its content is appropriate for the annual report to be considered at a meeting of the council of the institute within the relevant deadline and that there is a decision of the board of the adoption of the annual report.
- Risks that there is no business analysis available and that the organization does not monitor and compare regularly the planned and achieved revenues and expenses / costs: There is no analysis of operations in the annual report, nor are there any monthly or other interim reports on the operations of the organization.

Seventh component of COSO II: Risk of inadequate information and communication:

- The risk that external information and communication of the management is ineffective: Based on the records of the organization, it has been found out that the management communicates with parents' council, council of the institution, mayor, department of social services in the municipality, and with the ministry responsible for education.

Eighth component of COSO II: Risk of inadequate monitoring of all internal control components:

- The risk that the management of organization does not take into account the findings of other controls: Based on reports, it has been found out that the management takes into account findings of internal auditors and adopts recommendations of the latest internal

audit. Controls by institutions such as the Budget Control Office, School Inspection and the Court of Auditors have not been performed in the organization in the observed period. The organization also performs self-assessments.

CONCLUSION

Our study showed that the organization do not comply with the regulations in the following areas of costs' risks: does not have interim reports on the achievement of objectives, does not compare the provision of cash with the financial plan, has no reports on the realization of the cash flow plan and it does not have an analysis of operations in the annual report, nor does it have monthly or other interim reports on the operations of the organization.

This paper contributes to the literature of both internal audit and management studies and represents one of the first effort to examine the costs and their legality in public educational institutions. »This lends reason to believe that auditing which is organized according to certain principles has potential to contribute to well-functioning public administrations«, state in [6]. These institutions should use public money from the government and from their municipalities and from parents and other entities in proper and legitimate way. The findings in the paper would encourage them how to do that and also implies further research in costs' reporting and analytical system improvements in public educational institutions.

REFERENCES:

[1] Cohen A. G.: *Public Internal Financial Control*. A New Framework for Public, 2007.
[2] Koletnik, F., Kolar, I., *Forenzično računovodstvo*. Ljubljana: Zveza računovodij, finančnikov in revizorjev Slovenije, 2008.
[3] Rae, K., Sands, J., Subramaniam, N. (2017) *Associations among the Five Components within COSO Internal Control-Integrated Framework as the Underpinning of Quality Corporate Governance*, Australian Accounting, Business and Finance Journal, vol. 11, issue 1.
[4] Graham, J. R., Harvey, C., Rajgopal, S. (2005) *The economic implications of corporate financial reporting*, Journal of Accounting and Economics, vol. 40, issue 1-3, pp. 3-73.
[5] Horvat, T. (2014) *Notranja revizija zakonitosti financiranja dejavnosti vzgojno-izobraževalnega zavoda.* Slovenski inštitut za revizijo Ljubljana.
[6] Gustvason, M., Sundström, A. (2016) *Organizing the Audit Society: Does Good Auditing Generate Less Public Sector Corruption?* Administration & Society, vol. 50, issue: 10, pp.1508-1532.

EFEKTI LJUDSKOG KAPITALA NA FINANSIJSKE PERFORMANSE: ANALIZA PRE I POSLE IZGRADNJE BRENDA POSLODAVCA

EFFECTS OF HUMAN CAPITAL ON FINANCIAL PERFORMANCE: ANALYSIS BEFORE AND AFTER BUILDING A BRAND OF THE EMPLOYER

Goran Pavlović[1]

DOI: https://doi.org/10.31410/EMAN.2019.397

Rezime: *Zaposleni, tj. njihova znanja, veštine i sposobnosti predstavljaju ključni faktor uspeha i održive konkurentske prednosti. Svako preduzeće nastoji da pridobije one zaposlene koji poseduju jedinstveni ljudski kapital, tj. specifične kompetencije koje će omgućiti postizanje visokog nivoa performansi. Kako bi se to ostvarilo, omogućavaju se brojne mogućnosti zaposlenima poput fleksibilnog radnog vremena, stimulativnih kompenzacija, mogućnosti napredovanja, dodatnog obučavanja itd. Ovakvim faktorima preduzeće nastoji da se izdvoji kao jedinstveno i poželjno mesto za rad i time privuče i zadrži najbolje zaposlene. Neki od ovih faktora koji služe za izgradnju brenda poslodavca istovremeno mogu biti osnov za unapređenje ljudskog kapitala u preduzežu. Zato je i osnovni cilj ovog rada da sagleda promenu u stepenu ljudskog kapitala nakon izgrađenog brenda poslodavca i da se shodno tome utvrdi kako takva promena deluje na ostvarene performanse preduzeća*

Ključne reči: *ljudski kapital, brend poslodavca, performanse.*

Abstract: *Employees, i.e. their knowledge, skills and abilities are a key factor of success and sustainable competitive advantage. Each company strives to acquire those employees who have a unique human capital, i.e. specific competencies that will enable achieving a high level of performance. In order to achieve this, many opportunities are available to employees such as flexible working hours, stimulative benefits, promotion opportunities, additional training, etc. By such factors, the company strives to stand out as a unique and desirable place to work and thereby attract and retain the best employees. Some of these factors that serve to build an employer brand can at the same time be the basis for improving human capital in the enterprise. Therefore, the basic goal of this paper is to examine the change in the level of human capital after the built brand of the employer and, consequently, determine how such a change affects the achieved performance of the company*

Keywords: *human capital, employer brand, performance.*

---

1. UVOD

Ključni faktor uspeha savremenih preduzeća jestu zaposleni, tj njihova znanja i sposobnosti. Budući da je sve teže privući i zadržati kvalitetne zaposlene, preduzeća definišu različite strategije i načine kojima će ne samo privući, već motivisati i angažovati kvalitetni ljudski kapital koji će voditi realizaciji dobrih poslovnih rezultata. Jedan od načina da se takvi zaposleni privuku jeste i putem brenda poslodavca.

Brend poslodavca može se shvatiti kao set funkcinalnih, psiholoških i ekonomskih koristi koje će neko dobiti radom u preduzeću [1]. Reč je zapravo o takvoj strategiji upravljanja ljudskim resur-

---

[1] Univerzitet u Kragujevcu, Ekonomski fakultet, Srbija

sima gde se davanjem stimulativnih kompenzacija, redovnim obučavanjem, stvaranjem pozitivne radne atmosfere u kojima su zastupljeni dobri međuljudski odnosi, fleksibilno radno vreme, kreativni i izazovni zadaci i u kojima se uvažavaju ideje zaposlenih nastoji stvoriti jedinstvena i prepoznatljiva slika preduzeća kao dobrog mesta za rad. Stvaranjem takve slike u javnosti, preduzeće je u stanju da privuče, zadrži i motiviše najbolje zaposlene, koji će svojom posvećenošću, lojalnošću i zadovoljstvom u radu omogućiti postizanje dobrih poslovnih i finansijskih rezultata.

Neke od aktivnosti i mera za izgradnju brenda poslodavca značajni su i za ljudski kapital u preduzeću. Ovo je posebno karakteristično za proces edukacije zaposlenih, odavanje priznanja, napredovanje u karijeri, davanje izazovnog posla i sl. Drugim rečima, stvaranjem jedinstvenog i prepoznatljivog mesta za rad, preduzeća istovremeno uvećavaju stepen ljudskog kapitala, budući da se najčešće radi o aktivnostima i merama koje pozitivno deluju na motivaciju i sposobnosti zaposlenih. Imajući u vidu navedeno, osnovni cilj ovog rada jeste da sagleda promenu u stepenu ljudskog kapitala nakon izgrađenog brenda poslodavca i da se shodno tome utvrdi kako takva promena deluje na ostvarene performanse preduzeća.

2. PREGLED LITERATURE

Veliki broj preduzeća svoje marketing napore fokusira ka izgradnji korporativnog brenda, kao i na brendiranje proizvoda i usluga. Međutim, marketing filozofija i principi brendiranja mogu biti primenjeni i u domenu discipline upravljanja ljudskim resursima [2]. Kao rezultat takve aktivnosti nastaje koncept brenda poslodavca, koji se može shvatiti kao napor preduzeća ka stvaranju jedinstvenog i prepoznatljivog mesta za rad, na osnovu kojeg će preduzeće biti u stanju da identifikuje, privuče i zadrži najbolje kandidate sa tržišta rada [3]. Identifikacijom, privlačenjem i retencijom onih zaposlenih čiji se sistem vrednosti najbolje uklapa u sistem vrednosti i kulturu preduzeća, doći će do ostvarivanja visokog nivoa performansi [4]. Samo stvaranje jedinstvenog i prepoznatljivog mesta za rad podrazumeva niz aktivnosti i odluka preduzeća koje moraju biti preduzete kako bi se ono izdvojilo kao jedinstveno mesto za rad. Berthon i dr [5] su razvili tzv. dimenzije brenda poslodavca, koje se odnose na veliki broj faktora koji mogu delovati pozitivno na privlačenje i zadržavanje najboljih zaposlenih: stvaranje zanimljivog radnog okruženja, primena savremenih metoda rada i upravljanja, kreiranje atmosfere u kojoj će postojati dobri međuljudski odnosi i kooperacija između zaposlenih, davanje stimulativnih kompenzacija, redovna edukacija, uvažavanje kreativnosti, ideja i sugestija zaposlenih, davanje određenog stepena autonomije, priznanja itd. Veliki broj ovakvih mera i aktivnosti predstavljaju i jedan od načina za stvaranje jedinstvenog ljudskog kapitala u preduzeću.

Ljudski kapital, koji predstavlja jednu od najbitnijih i sastavnih komponenti intelektualnog kapitala i nematerijalne imovine preduzeća, može se definisati kao kombinacija znanja, veština, iskustva, sposobnosti i inovativnosti zaposlenih da izvrše zadatke u preduzeću [6]. Međutim, ljudski kapital daleko je više samo od znanja zaposlenih. On se odnosi i na njihovu kreativnost, lojanost, motivisanost, posvećenost, sposobnost učenja novih stvari, entuzijazam itd [7]. Ljudski kapital je posebno značajan u savremenim uslovima poslovanja, koje odlikuju izražena konkurencija i sve veći značaj nematerijalne imovine za ostvarivanje uspeha i konkurentske prednosti. Ona preduzeća koja poseduju vredan ljudski kapital u mogućnosti su da razvijaju inovativne ideje, proizvode i usluge, procese, metode i načine rada koji će voditi efikasnosti i efektivnosti poslovanja [8]-[9]. Drugim rečima, ljudski kapital je od presudne važnosti za sticanje održive konkurentske prednosti pa se zato može smatrati najvrednijom komponentom intelektualnog kapitala [10].

Neke od aktivnosti za izgradnju brenda poslodavca značajne su i za stvaraje ljudskog kapitala u preduzeću. Ovo se posebno odnosi na aktivnosti poput obučavanja i razvoja zaposlenih, stvaranja stimulativnog i prijatnog radnog okruženja sa izazovnim zadacima koji će pozitivno delovati na posvećenost zaposlenih poslu, odavanje priznanja, omogućavanje fleksibilnog radnog vremena, davanja stimulativnih kompenzacija i brojnih drugih materijalnih i nematerijalnih nagrada [11]-[12]-[13]. Realno je očekivati da će u onim preduzećima u kojima vladaju ovakvi radni uslovi i u kojima zaposleni predstavljaju najbitniju komponentu imovine i uspeha biti veći i stepen ljudskog kapitala. Posledično, brend poslodavca i veći stepen ljudskog kapitala vodiće ka boljim poslovnim i finansijskim performansama preduzeća [14]-[13]-[12]-[7]. Imajući u vidu navedeno, mogu se definisati sledeće hipoteze ovog rada:

H_1: Uticaj ljudskog kapitala na finansijske performanse veći je nakon stvaranja brenda poslodavca.

H_2: Nivo ostvarenih finansijskih perfrormansi veći je nakon ostvarenog brenda poslodavca.

2. METODOLOGIJA ISTRAŽIVANJA

Kako bi se ispitale istraživačke hipoteze u radu, sprovedeno je originalno istraživanje nad uzorkom preduzeća koja posluju na teritoriji Republike Srbije. Radi se o preduzećima koja su u toku 2016. godine istraživanjem od strane *Infostuda* bila proglašena kao najbolja mesta za rad [15]. Ovim putem formiran je uzorak od 10 preduzeća. Potrebno je naglasiti da je 2016. godina uzeta zbog objektivnosti i kvaliteta rezultata. Naime, Brown i dr [16] ističu da je radi kvaliteta zaključka potrebno odabrati duži vremenski period, kao i nekoliko različitih varijabli. Sledeći ovakav stav, u istraživanju su praćeni ostvareni rezultati u vremenskom periodu od 2 godine pre i 2 godine nakon stvaranja brenda poslodavca. Ljudski kapital, koji predstavlja *nezavisnu varijablu* u modelu, dobija se na osnovu modela koji je definisao Pulić [17]. Reč je o tzv. VAIC modelu, koji se sastoji iz ljudskog, strukturnog i relacionog kapitala. Prema navedenom modelu, ljudski kapital predstavlja odnos između između dodate vrednosti (VA) (prihod umanjen za ukupne troškove, osim troškova po osnovu zarada) i ukupno isplaćenih zarada zaposlenima (HC), tj.

$$\text{Ljudski kapital} = VA / HC \qquad (1)$$

Zavisne varijable u modelu predstavljaju stopa prinosa na ukupna poslovna sredstva (ROA) i stopa prinosa na ukupno uložen kapital (ROE).

3. REZULTATI ISTRAŽIVANJA

Na samom početku analize primenjena je deskrtiptivna statistička analiza kako bi se utvrdile srednje vrednosti i prosečna odstupanja pojedinih pokazatelja i performansi u modelu. Rezultati analize prikazani su u Tabeli broj 1.

Kao što se iz Tabele 1 može zaključiti, preduzeća iz uzorka su nakon izgradnje brenda poslodavca, tj. jedinstvenog i prepoznatljivog mesta za rad ostvarila viši nivo prihoda, ali i veće prosečno odstupanje u tom pogledu. Neto dobitak nakon izgradnje brenda poslodavca nije veći, ali je potrebno imati u vidu da su i ulaganja, tj. troškovi takođe porasli, što je imalo uticaja na konačni rezultat. Međutim, nakon izgradnje brenda poslodavca došlo je do ostvarivanja većeg prinosa na ukupna ulaganja (ROA), kao i znatno većeg prinosa na ukupno uloženi kapital (ROE), koji je sa 7,5 porastao na 19,31 nakon izgradnje brenda poslodavca. Kao rezultat izgradnje brenda

poslodavca došlo je, očekivano i do rasta stepena ljudskog kapitala. U periodu pre izgradnje brenda poslodavca, stepen ljudskog kapitala iznosio je 0,49, dok nakon izgradnje brenda poslodavca stepen ljudskog kapitala iznosi 1,23.

Pokazatelj performansi	Pre brenda poslodavca		Posle brenda poslodavca	
	Aritm. sredina	Stand. devijacija	Aritm. sredina	Stand. devijacija
Ljudski kapital	0,49	3,35	1,23	0,59
ROA	6,17	21,68	9,98	11,08
ROE	7,5	46,67	19,31	20,56
Poslovni prihod	58.210.695	77.993.430	66.070.265	88.206.795
Neto dobitak	5.792.338	8.754.421	5.542.728	7.863.787

Tabela 1. Rezultati deskriptivne statističke analize. Izvor: Autor

Kako bi se ispitala prva istraživačka hipoteza, primenjen je Chow test. Primenom ovog testa u dva vremenska intervala, u ovom slučaju pre i nakon izgradnje brenda poslodavca, može se doći do zaključka kakve su se strukturne promene dogodile u okviru ljudskog kapitala, kao i kakav to uticaj ostvaruje na performance preduzeća. Statistika Chow testa podrazumeva sledeći model [18]-[19]:

$$F = \frac{\frac{RSSw - RSSg + RSSj}{k}}{\frac{RSSg - RSSj}{n1 + n2 - 2k}} \tag{2}$$

gde F predstavlja statistiku testa, RSSw predstavlja rezidualnu sumu kvadrata celog uzorka, RSSg predstavlja rezidualnu sumu kvadrata pre brenda poslodavca, RSSj predstavlja rezidualnu sumu kvadrata nakon izgradnje brenda poslodavca, k predstavlja broj regresora, a n1+n2-2k broj stepeni slobode. U Tabeli broj 2 prikazani su rezultati Chow testa za uticaj nezavisne varijable na svaku zavisnu varijablu pojedinačno pre i nakon izgradnje brenda poslodavca.

Model	Suma reziduala	Suma reziduala pre	Suma reziduala posle	F
HC → ROA	11.204,432	8.293,148	2.448,345	$3{,}25^{ns}$
HC → ROE	48.421,932	38.718,722	6.640,502	$3{,}259^{ns}$

Napomena: ns-nema signifikantnosti

Tabela 2. Rezultati Chow testa. Izvor: Autor

Iako se posmatranjem aritmetičkih sredina ROA i ROE može steći preliminarni zaključak da je došlo do njihovog povećanja nakon izgradnje brenda poslodavca, vrednost testa nije na dovoljno signifikantnom nivou da bi se tvrdilo da porast ljudskog kapitala nakon izgradnje brenda poslodavca ostvaruje pozitivan uticaj na finansijske performanse. Shodno tome može se konstatovati da H1 hipoteza nije potvrđena.

Kako bi se ispitala H2 istraživačka hipoteza, primenjen je uporedni t test. Primena ovog testa podrazumeva se prilikom poređenja sredina koji dolaze iz istih preduzeća u različitim vremenskim intervalima, u ovom slučaju pre i nakon izgradnje brenda poslodavca. Rezultati testa predstavljeni su u Tabeli broj 3.

Pokazatelj	Artimetičke sredine		P vrednost
ROA	Pre	6,13	0,023*
	Posle	11,95	
ROE	Pre	10,37	0,077**
	Posle	22,04	

Napomena: *-vrednost je signifikantna na nivou 0.05; **- vrednost je signifikantna na nivou 0.1

Tabela 3. Rezultati uporednog t testa. Izvor: Autor

Kao što se iz prethodne tabele može zaključiti, brend poslodavca dovodi do povećanja finansijskih performansi preduzeća. Naime, u periodu pre stvaranja brenda poslodavca, ROA i ROE su bile dosta manje u odnosu na period nakon izgradnje. Sa vrednostima koje su signifikantne na nivou 0,05 i 0,1, može se reći da je nivo ostvarenih finansijskih performansi veći nakon izgradnje brenda poslodavca, čime je H2 istraživačka hipoteza potvrđena.

4. DISKUSIJA I ZAKLJUČAK

Kako savremeni uslovi poslovanja podrazumevaju izrazitu konkurenciju koja u velikoj meri ostvarivanje dobrih poslovnih performansi čini neizvesnim, potrebno je privući one zaposlene koji poseduju specifična znanja, veštine i spobnosti, a koji će biti lojalni i posvećeni preduzeću. Da bi privukla takve zaposlene, preduzeća primenjuju niz različitih strategija i taktika, a jedna od njih je brend poslodavca. Shvaćen kao napor preduzeća ka stvaranju jedinstvenog i prepoznatljivog mesta za rad, brend poslodavca je u odgovarajućoj relaciji sa ljudskih kapitalom, budući da su neke mere za stvaranje brenda poslodavca istovremeno i mere za izgradnju ljudskog kapitala, poput treninga i obučavanja zaposlenih, davanja priznanja, stimulativnih kompenzacija, omogućavanja fleksibilnog radnog vremena i sl.

Kako bi se ispitala relacija između brenda poslodavca i ljudskog kapitala i utvrdio njihov uticaj na performanse, sprovedeno je istraživanje nad preduzećima koja su se u toku 2016. godine identifikovala kao najbolja mesta za rad u Republici Srbiji. Analizom je obuhvaćen vremenski period 2 godine pre i 2 godine nakon što su preduzeće proglašena kao najbolja mesta za rad. Rezultati statističke analize su najpre pokazali da je nakon izgradnje brenda poslodavca u preduzećima povećan stepen ljudskog kapitala, meren tzv. VAIC modelom. Takođe se pokazalo da su povećane i ostvarene finansijske performanse, osim neto dobitka. Međutim, treba imati u vidu da odsustvo povećanja neto dobitka nije problem, budući da je došlo i do rasta troškova poslovanja. Kako bi se utvrdio uticaj rasta ljudskog kapitala na finansijske performanse, realizovan je Chow test, koji prati strukturne promene u ljudskom kapitalu u toku vremena i njihov uticaj na ostvarene rezultate. Rezultati testa su pokazali da porast ljudskog kapitala nije doveo do rasta finansijskih performansi, tj. ROA i ROE, čime je prva hipoteza odbačena. Međutim, ovakvi rezultati kada je u pitanju uticaj ljudskog kapitala na finansijske performanse nije redak, budući da na ostvarene finansijske rezultate deluje veliki broj drugih faktora u preduzeću, a ne samo ljudski kapital i ljudski resursi. Sa druge strane, rezultati uporednog t testa su pokazali da je nakon izgradnje brenda poslodavca došlo do značajnog uvećanja ROA i ROE, čime je potvrđena druga istraživačka hipoteza. Dobijeni rezultat potvrđuje činjenicu da brend poslodavca, tj. dobra reputacija preduzeća kao mesta za rad, dovodi do rasta produktivnosti i efikasnosti u poslovanju, što dalje vodi dobrim finansijskim rezultatima preduzeća.

Naučni doprinos rada ogleda se u proširivanju naučnog saznanja iz oblasti ljudskog kapitala, brenda poslodavca, kao i njihove povezanosti i uticaja na finansijske performanse. Prema saznanju autora, ovakva istraživanja ranije nisu sprovedena na teritoriji Republike Srbije, što stvara adekvatnu osnovu za sprovođenje daljih istraživanja.

Praktični doprinos rada ogleda se u pružanju relevantnih informacija menadžerima i privrednicima o tome kako izgradnja brenda poslodavca može istovremeno delovati i na rast ljudskog kapitala i kako takve aktivnosti mogu delovati na finansijske performanse.

Ograničenje rada ogleda se pre svega u veličini uzorka, koji u narednim istraživanjima mora biti uvećan. Poželjno je u budućim istraživanjima takođe povećati i broj zavisnih varijabli u modelu, kako bi se utvrdio uticaj ljudskog kapitala na druge finansijske i poslovne performanse. Radi sagledavanja dugoročnog efekta brenda poslodavca i ljudskog kapitala na ostvarene rezultate, potrebno je povećati i vremenski period istraživanja, a u samom istraživanju uključiti preduzeća koja dolaze iz različitih granskih delatnosti.

REFERENCES

[1] Ambler, T., & Barrow, S. (1996). The employer brand, *The Journal of Brand Management,* 4(3), 185-206.
[2] Alniaçik, E., Alniaçik, U., Erat, S., & Akçin, K. (2014), Attracting talented employees to the company: Do we need different employer branding strategies in different cultures*? 8th International Strategic Management Conference*, *Procedia – Social and Behavioral Conference,* 150, 336-344.
[3] Backhaus, K., & Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International,* 9(5), 501-517.
[4] Urbanova, H., & Hudakova, M. (2017). Benefits of employer brand and the supporting trends, *Economics & Sociology,* 10(4), 41-50.
[5] Berthon, P., Ewing, M., & Hah, L.L. (2005). Captivating company: dimensions of attractiveness in employer branding. *International Journal of Advertising,* 24(2), 151-172.
[6] Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Review,* 3(1), 41-60.
[7] Pavlović, G. (2018). Uticaj ljudskog kapitala na finansijske performanse preduzeća. *Fourth International Scientific Conference Leadership and Management: Integrated Politics of Research and Innovations, LIMEN 2018*, Belgrade, 293-299.
[8] Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Management Decision,* 36(2), 63-76.
[9] Kwon, K., & Rupp, D.E. (2012). High-performer turnover and firm performance: The moderating role of human capital investment and firm reputation. *Journal of Organizational Behavior,* 34(1), 1-22.
[10] Obeidat, B.Y., Abdallah, A.B., Aqquad, N.O., Akhoershidah, A.H., Maquableh, M. (2017). The effect of intellectual capital on organizational performance: The mediating role of knowledge sharing. *Communications and Network*, 9, 1-27.
[11] Botha, A., Bussin, M., & Swardt, L. (2011). An employer brand predictive model for talent attraction and retention. *SA Journal of Human Resource Management,* 9(1), 1-12.
[12] Robertson, A. &, Khatibi, A. (2012). By design or by default: Creating the employer identity. *The IUP Journal of Brand Management,* 9(4), 31-47.

[13] Srivastava, P., & Bhatnagar, J. (2010). Employer brand for talent acquisition: an exploration towards its measurements. *VISION-The Journal of Business Perspective,* 14(1-2), 26-34.

[14] Dženopoljac, V., Janošević, S., & Bontis, N. (2016). Intellectual capital and financial performance in the Serbian ICT industry. *Journal of Intellectual Capital,* 17(2), 373-396.

[15] https://poslovi.infostud.com/vesti/Veliko-istrazivanje-zavrseno-Ko-su-najpozeljniji-poslodavci-u-Srbiji/51618, pristupljeno 1.3.2019. godine.

[16] Brown, R.M., Gatian, A.W., & Hicks, J.O. (1995). Strategic information systems and financial performance. *Journal of Management Information Systems*, 11(4), 215-248.

[17] Pulić, A. (2000). VAIC - an accounting tool for IC management. *International Journal of Technology Management,* 20, 702-714.

[18] Azhagaiah, R., & Satishkumar, T. (2014). Impact of mergers and acquisitions on operating performance: evidence from manufacturing firms in India. *Managing Global Transitions,* 12(2), 121-139.

[19] Chow, G.C. (1960). Tests of equality between sets of coefficients in two linear regressions. *Econometrica,* 28(3), 591-605.

DIGITALIZATION OF MARKETING THROUGH LED PANELS USING Wi-Fi TECHNOLOGY

Kujtim Mustafa[1]
Ragmi Mustafa[2]

DOI: https://doi.org/10.31410/EMAN.2019.405

Abstract: *This project has the main objective to study some main functions of hardware and software of panels with LED diodes using Wireless technology communication to communicate from computer to the LED diodes panels. It is also focused on the programming of LED matrix diodes located on 16X96 electronic panels, respectively 16 rows of 96 columns. Also, there is elaborated the study of the mode of operation, composition, coding and use of software for panel diodes using the wireless technology to change the panel program each time it is needed. In the focus of all this is the introduction of diode panels in use at „Kadri Zeka" University exactly at the Faculty of Computer Science to provide digital information to students, professors or anyone passing through the premises of the university that is happening inside the classrooms of the Faculty of Computer Science. This happens in real time in accordance with the schedule of lectures and exercises in the respective classrooms of the FCS. In fact, this project explains in detail the concept of LED diodes and microcontrollers, their features, operation, power supply and work with 0 [VDC] and 5 [VDC] voltages, respectively 0 and 1 logic bits. Meanwhile, the project also explains how coding, how the software is developed to switch on, and switch off LED diodes on a 96X16 LED diode panel, thereby producing text on the panel (display, screen) in static, mobile, animation or up-down, left and right movements according to the time allocated to the timers of the microcontrollers. Such actions achieve the goal of the digitalization project of the classrooms of the Faculty of Computer Science. The same technology and all the hardware devices are possible to be used in all the marketing to represent information about different scopes.*

Keywords: *LED diodes, Wi-Fi, light-emitting diode panels, digitalization, microcontrollers, memory, microprocessors, source codes, software, text.*

1. INTRODUCTION

1.1. Usability of Wi-Fi technology

Wi-Fi can be used in many locations where it is harder to communicate using wires, such as: schools, universities, campus, hospital, airport, bus station, train station, hotels, restaurants, library, and many other locations in order to communicate in intranet and internet as well. Hotspots (network distributed devices) can be placed on one or more than one place in order to cover the area with the network [13].

In this case, usage of the Wi-Fi technology on the LED diodes panel are placed on the higher areas where it cannot be reached by people without any other helpful stair and are used for marketing, presenting any timetable, student scheduling, temperature or other information, can be attractive and nice looking.

1 South East European University, Tetovo – Macedonia
2 University „Kadri Zeka", Gjilan

This study has to deal on putting the LED diodes panels of size 96x16 monochrome with green light which panels that has integrated wireless device inside in order to work as access points, on the entrance doors of the study rooms at Faculty of Computer Science in University "Kadri Zeka" in Gjilan - Kosovo, in order to give information to students, professors, or any other who is walking around the rooms to learn what is happening in each individual study room or other university room. Of course, to give such information we are using the LED diodes panel and switching on or off the diodes to draw the certain letters and to form the words.

2. CHARACTERISTICS OF LED MATRIX PANEL

The panel that is the object of study and review is not the most qualitative in the market, but performs the function for which it is explored, and any other model works according to the same principles.

Figure 1: Led Panel 96X16 diodes and information about what is currently happening in the room B24 FSHK's

Table 1: Characteristics of LED panel 96 X 16 diodes [7]

Model	**HD – E65**
Chip type	Supports only green color
Distance between LEDs	10 [mm]
Supply voltage and electricity	5 [V] 40 [A]
Luminance	≥ 7500 cd/m^2 (for outdoor)
Light module format	32 X 16 LED
LED number for module	512 LED
Panel Dimensions	110 x 10 x 22 [cm]
The amount of power consumption	20 [W] – 40 [W]
Number of modules	3
Angle of view	120° horizontal, 60° vertical
Working temperature	-20 [°C] ~ +60 [°C]
Supply to the city's electrical network	Alternative electricity 100 ~ 240 [VAC]
LED diodes for panel	96 X 16 LED
Total number of LEDs on the panel	1536 LED

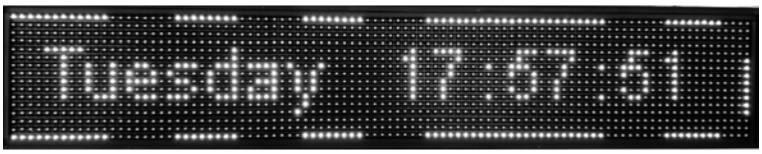


Figure 2: Moving text, digital day and time

2.1. ML 96 x 16 R (model: HD E-65)

The digital display is able to emit static text, moving, displacement, animation, cyclic, scroll, slug, blinker, that text moves from left to right, from right to left, bottom-up, top-down or similar movements. Shows the correct time, date, temperature and even one or more rows depending on the number of diodes according to the lines of the display (relatively with high resolution). 24 types of animations can be selected for text you can adjust the speed of the text movement [7]. The possibility of the timer display option that automatically activates or deactivates the device programs within certain time intervals. In the computer is formed a text, the module is programmed and it can be stored and then transferred to USB connected to the appropriate port of the diode panel and transferred as text on the display. The text on the digital display is easily programmed through software that works in the Windows operating system. The system recognizes and can perform with different types of fonts that are used on the Windows operating system [7]. The LED panel programming is performed through the respective software installed on the personal computer and transferring the program through USB port with USB memory, via RF or Wi-Fi technologies!

Figure 3: Two panels connected physically and present the inscription of the University Digit: ML96X16R; HD2016 LED Display Controller; Card Model: HD E-65

2.2. Illuminating Diode (LED)

LED is the abbreviation of English words „light-emitting diode", that is, a light-emitting diode. The illuminating diode is built in the same way as the usual semiconductor diode. It will work if it is polarized on the right side [1], [2]. The intensity of the light is regulated by the current which flows through the diode also exponentially. The diode will not emit light when it is polarized in the opposite direction. The color of the light emitted depends on the type of semiconductor and the added impurities. The diode produced by gallium phosphate (GaP) emits red light while that of gallium arsenide phosphide can emit light green or yellow [1], [2]. The graphic symbol and characteristics of the light-emitting diode are shown in Figure 4 as follows:

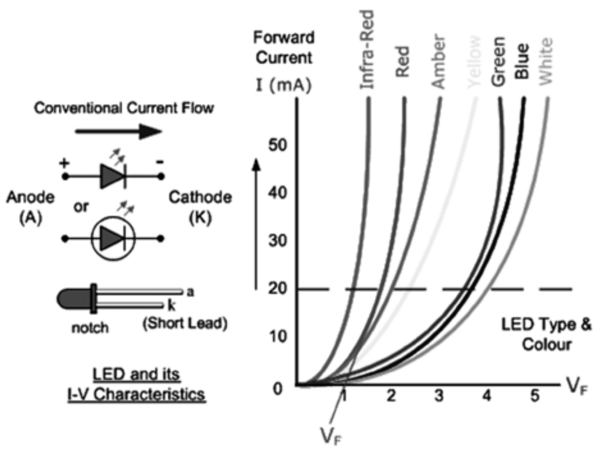


Figure 4: Characteristics of LED diodes [5]

The advantages of light-emitting diodes are small size, safety at work, long term service, work with low tensions and currents, small losses of electricity, great work speed.

2.3. Usability

LED Light-emitting diode are used for signaling, through which the open or closed status of an electronic circuit is indicated. Especially they are implemented in bright light indicators. *LED diodes.* At the moment of power supply of LED diodes with semiconductor material content is of gallium arsenide phosphide and its positive polarization leads to electron bulging causing the production of light waves in the range of 550 to 640 [nm] [4], [5]. Breaking light on the conic lenses of the observer's eye (human) creates a sense of perception of the green color according to the spectrum of the colors of the light waves [4], [5]. In other cases, semiconductor material and semiconductor diodes will produce light beams at other intervals of the wavelength and creates a sense of perception of the respective color, always according to electromagnetic spectrum ranges of electromagnetic wavelengths as shown in Figure 5.

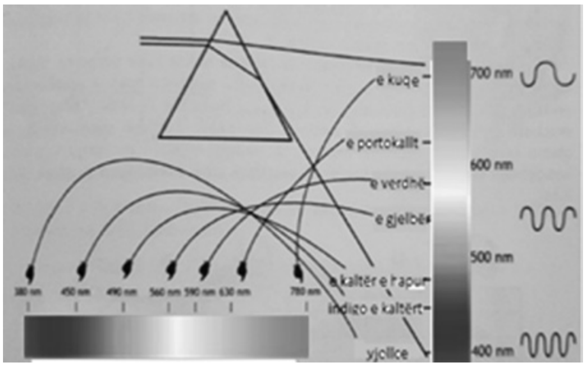


Figure 5: RGB base color spectrum acquired by the length range
of the light beam (electromagnetic wave) [5]

2.4. LIGHTNING DIODE (LED)

LEDs are special diodes that emit light when connected to an electrical circuit. They are often used as a pilot lamp in electronic applications to show when the circuit is running or not. In a right polarized diode, free electrons pass the union of p-n contact and become conductive. If these electrons pass from a higher energy level to a lower power level, they generate energy. In ordinary diodes like Silicium (Si) or Ge (Germanium), most of this energy goes in the form of warmth. In other materials such as gallium (Ga), Arsenic (As) and Phosphorus (P) or Gallium-Phosphorus (GaP), the number of photons of light is sufficient to create a visible light source [1]. In light emitting diodes, this energy radiates as light. The most important part of an LED is a semiconductor chip placed in the center of the lamp. The chip has two layers: the **p** layer has mainly positive electrical loads and the layer **n** with negative electrical loads. When a sufficient voltage is applied to the diode, the electrons can flow easily in one direction to the **p** and **n** layer contacts. So, it starts to flow the current, because layer electrons **n** has enough energy to move to the **p** layer [1]. When an electron moves and falls on a positive load, both loads are recombined, so when an electron hits a hole, it falls to a lower level of energy and emits energy in the form of a photon. Whenever an electron is recombined with a positive load, the potential electric energy is transformed into electromagnetic energy [1].

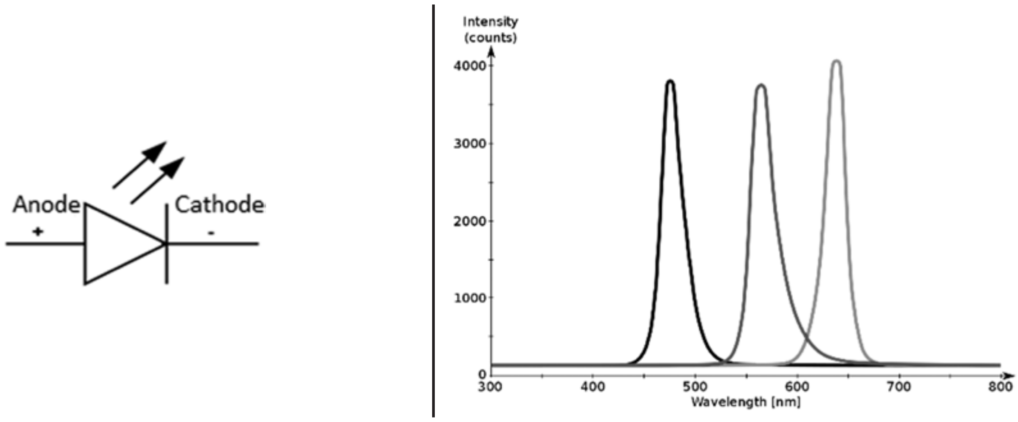


Figure 6: Graphic symbol of LED light-emitting diodes [6]

Some of the LED uses in everyday life are:

- architectural lighting,
- indicators (condition indicators) in many electronic devices,
- traffic signals and road signs,
- handheld flashlight,
- remote controls thanks to the infrared LED,
- optical fiber for traffic,
- for Christmas tree lights,
- LED anti-acne phototherapy has been effective in the disappearance of acne for a 3-month period,
- lighting panels and other textual descriptions.

2.5. Disadvantages of LED usage

LEDs are more expensive currently than other lighting technologies. LED performance generally depends on the ambient temperature in which it works. By operating the LED at high ambient temperatures, this may result in overheating of the diode and lead to damage (drilling effect) and to malfunction.

2.6. Microcontrollers

The microcontroller contains microprocessor, memory and a large number of peripheral devices such as timers (timer relays), serial ports, input / output pin terminals, numerators, analog inputs and so on. All of these are within a silicon circuit in the form of a built-in system. Examples of built-in systems are: calculators, computers, and smart phones. The microcontroller system architecture has changed from time to time, but what is left behind is the programming language C [3].

The programming language consists of alphanumeric characters, syntax of commands, functions which constitute a program code comprehensible to man, respectively the programmer. On the other hand, the execution of the programming code on the computer is performed when the program code is compiled in the machine language. This implies that each alphanumeric sign of the programming code is converted to the binary code (0 and 1 logic) according to the international agreement the ASCII table or the extended EBDCIC table. This, in effect, represents the string of square time voltages of the lowest level 0 [VDC] and highest 5 [VDC] respectively.

Meanwhile, 5 [VDC] voltage supplies LED light-emitting diodes, which causes LED diode brightness, while 0 [VDC] voltage fails to arouse the illumination of LED diodes [3].

All input data are placed in the microcontroller memory. From the microcontroller memory, the input data is processed in the microprocessor for processing and the results obtained according to the respective software or programming code are stored in the memory and transmitted to the respective ports of peripheral devices and in this case the 96 x 16 diode panel where diodes are placed within an electronic plate. If the microcontroller memory inserts the letter B and the voltmeter (voltage measuring instrument) it will be possible to measure the voltages of each bit in turn we will show the voltage measurements as in the following figure 7:

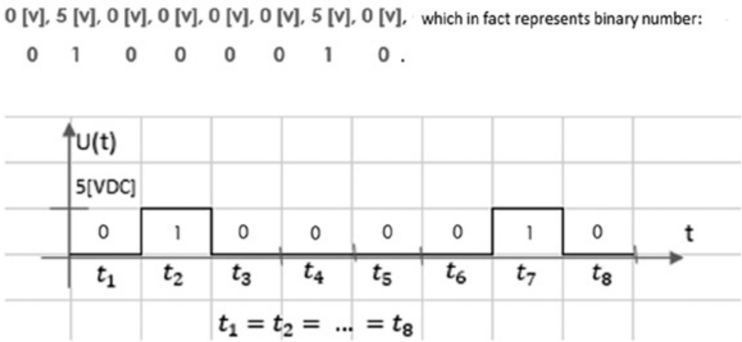


Figure 7: Chart tensions 0 [VDC] 5 [VDC], presentation by binary numbers 1 and 0 logic

Presentation of binary digit 1 with voltage of 5 [VDC] or any other value depends on the technical characteristics and electronic components of the microcontroller system. 8-bit array: belongs to the decade number because: viewed at the ASCII - code table, this belongs to letter B.

3. ARCHIVING OF DATA IN MEMORY

The data in the memory is placed in the form of a byte sequence. Each byte possesses its unique address and can be addressed as in Table 2. Data in the memory can be recorded and read.

Bit positions in a memory address from 0 to 7 of a byte:

Table 2: Presentation of data storage (bytes) in memory

	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Address 0	1	0	1	0	1	0	1	0
Address 1	0	0	1	1	0	1	0	1
Address 2	1	1	1	1	1	0	1	1
Address 3	1	0	0	0	0	1	0	0
Address ...	...	...	...	...	...	...	...	...
Address n	...	...	...	...	...	...	...	...

1 Byte of data

Each cell can store bit of value 0 or 1

3.1. Switching on and switching off the LED light-emitting diodes in the electronic board

When the built-in microcontroller system is connected, all of its pins are initially defined as inputs. To switch on or off LED light-emitting diodes placed on an electronic board, we need to set or describe the values in the respective data entry port (DDR - Data Migration Data Logger). Therefore, for access to Port A, the DDRA register is used, Port B is used for DDRB and so on, where LED diodes are connected [3].

In the pin with index number 5 (PB5) of the plate (Arduino Uno) is connected the LED Illumination. If the bit with position 5 of DDRB is described or transmitted logical energy level or be 1 then port B ordinal number 5 (PB5) is set as PIN DOWN.

The hexadecimal number to be described in this case in the register is: (20) 16 or 0X20, in which case the LED will be illuminated. Therefore, if logic or beam 1 is described in the register, this is the fact that the LED diode is supplied with a voltage of 5 [VDC] which will switch off its illumination.

The binary number in the register $(00100000)_2$ is converted to the hexadecimal as follows:

$$(00100000)_2=(0010\ 0000)_2$$

$$(0010)_2=0{\cdot}2^0+1{\cdot}2^1+0{\cdot}2^2+0{\cdot}2^3=2$$

$$(0000)_2=0{\cdot}2^0+0{\cdot}2^1+0{\cdot}2^{2+}0{\cdot}2^3=0$$

Therefore, the hexadecimal number is: $(20)_{16}$! This happens with the best intention that data in programming language C are written in hexadecimal format rather than binary format. The programming code example C in the programming language C for diode input is defined as follows:

```
int main(void)
{
      DDRB = 0x20;  //  set bit 5 of DDR register which makes PB5 an output
      while(1)
      {
            PORTB = 0x20;       //  swich LED on
            Delay();
            PORTB = 0x0;  //  swich LED off
            Delay();
      }
}
void Delay(void)
{
volatile unsigned long count = 100000;
while (count--);
}
```

The result of this programming code in the programming language C is that in the electronic board where LED diode is connected, the same to switch it on or off the LED diode to pulsate by switching on and off at a high frequency.

The file: io.h located at the beginning of the program code enables the registry to be accessible for access. Setting logic 1 to the set bit position in the DDRB registry creates the corresponding pin declaration option as OUTPUT PIN on the PORTB port.

In the loop while (1) the PORTB register is set to enable the LED diode to light up, provided that the corresponding bit in the log has the logical value 1, the same bit is again set but in logical value 0 in order to switch off the LED diode light. Calling the Delay() function between the LED diode switch on ensures that the LED diode remains in the turned on state and turned off enough at a high frequency so that it is visible to the human eye, creating the impression of the constant illumination.

With the while (count) command is reached that the program cycle is repeated whenever the counter count = 100000 decreases for one to the 0 value when also the command while (count--) gets the false value. This actually determines the timing of the LED dialing switch disconnection. At the end of this time according to volatile unsigned long count counter (100000) the program comes out of the cycle and completes its work.

3.2. Array

Programming language C uses successive memory locations that archive specific type of data. For example, the programming string C, consisting of 5 integers, is defined as follows:

```
int arr_num[5]; or     unsigned char seq[ ];
```

Through the definition of the arrays, it is easy to switch on and off LED light diodes placed on an electronic board (LED DIODE PANEL). The following programming code initiates the array through a set of numbers that are described on the LED for their switch on and off [3]. Such array is known as a reference table.

Connecting four LED diodes to the pin terminals of PC0, PC1, PC2 and PC3 microcontrollers is explained in the same way as before. The values in the full-range string are the values that are described (placed) on the microcontroller output port for LED light-disconnection and disconnection. The array of the given numbers is 1, 2, 4, 8, 6, 9, 15, 5, 10, 5, 10. One-dimensional array numbers should be converted to hexadecimal format so that they are read in the file. The programming code for this case of four LED diodes is defined as follows:

```
#define F_CPU 16000000UL
#include <avr/io.h>
#include <util/delay.h>
int main(void)
{
        unsigned char seq[ ] = {0x01, 0x02, 0x04, 0x08, 0x06,
                                0x09, 0x0F, 0x05, 0x0A, 0x05, 0x0A};
        int ind;
        DDRC = 0x0F;          //  lower 4 bits of port C are outputs
        while(1)  {
                for (ind = 0; ind < sizeof(seq); ind++) {
PORTC = seq[ind];
_delay_ms(1000);
                }
        }
}
```

The result of this program code looks like in Figure 8.

Hexadecimal Number	LED diodes of panel Position of LED diodes from 0 to 3 Pin PC0 Pin PC1 Pin PC2 Pin PC3 2^3	2^2	2^1	2^0
0x01	○	○	○	●
0x02	○	○	●	○
0x04	○	●	○	○
0x08	●	○	○	○
0x06	○	●	●	○
0x09	●	○	○	●
0x0F	●	●	●	●
0x05	○	●	○	●
0x0A	●	○	●	○
0x05	○	●	○	●
0x0A	●	○	●	○

● LED locked diode; ○ LED unlocked diode;

Figure 8: LED diode connection according to matrix programming code [3]

4. THE HD-E65 LED PANEL SOFTWARE, CONSISTING OF 96 LED DIODE ARRAYS AND 16 ROWS ALSO LED DIODES (96X16) KNOWN AS: HD2016

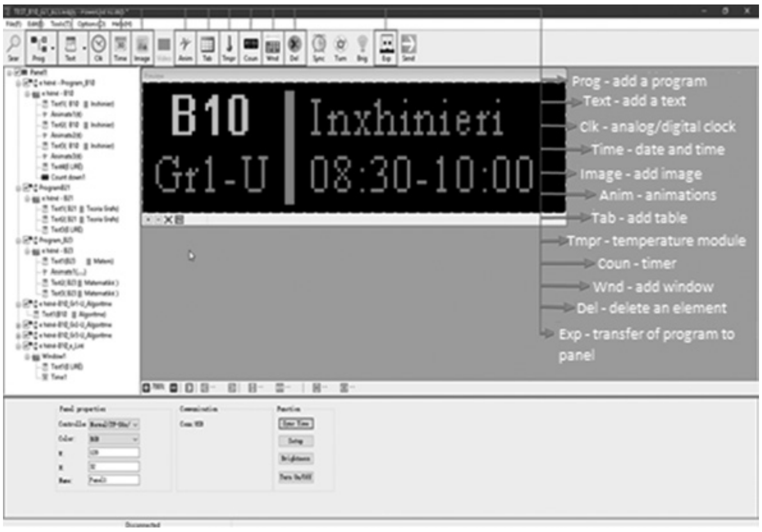


Figure 9: The look of the PowerLed 96X16 Test software

PowerLed is a software used for programming RGB matrix panels, it contains a collection of tools that can be used to program different panels, which consist of menu bar, toolbar, window class, virtual panel windows, feature windows, etc. [7].

For the programming of the LED panel, in special cases the Software is used which is dedicated to 160X32 panels (160 columns with diodes and 32 rows) model [7]: HD2016, Module HD – E65, Screen Size: 160X32, Color: Single color, Communication: Com port, U disc, Ethernet, Memory: 2M.

Therefore, for panel programming, we need to consider which software is available for use.

When programming a LED panel with a 96X16 LED diode via a software module for 160X32 LED diode panels, it is necessary to determine the start of the software co-ordinate system so that we can set the text at the top of the panel from left to right. Otherwise, we will not be able to see the desired text because the placement of the text will remain defined outside the positive (real) coordinates of the coordinate system (x,y) . For this case, if the software is designed for 160 columns of 32 rows, then in the extension of the x-axis, move right to: 160 - 96 = 64 positions, which will be considered the point (0.0) for the 96-column panel and 16 rows. Of course, this is achieved by selecting the menus as follows: screen1 / program1 / text1 and window displacement for 64 points in the positive direction of the x axis, while in the direction of y axis only half of the field is transmitted because: 32: 2 = 16.

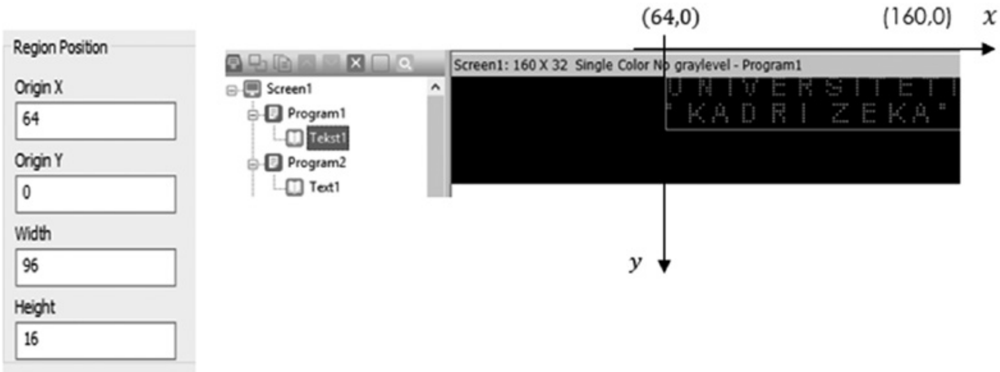


Figure 10: Allocation coordinates of LED panel diode 96X16 160X32 through software diodes

4.1. U disk tool

It is used for exporting screen prepared with certain programs and texts in memory (USB) provided that the Memory Flush is placed in the relevant computer port. After export to Memory Card (USB), the same goes out of the computer port and is placed on the LED panel port. In this case the program is read and the OK message is displayed on the LED panel. At this moment, the flash memory is removed from the LED panel and the device works according to the program now installed on the 96X16 LED panel.

Figure 11: U disc tool

4.2. Program export tools and communication using Wi-Fi

As we have explained previously the LED panel devices could communicate with computers using Wi-Fi built-in devices. The LED panel is used as access point for which the computer who has wireless adapter card can search for the wireless access points panel. On the menu of the application - it is a menu Settings, then you click submenu Communication Settings in order to open the wirelesses of each LED panel. It should connect to the panel wireless SSID and then send the program, as it is shown in the following figure:

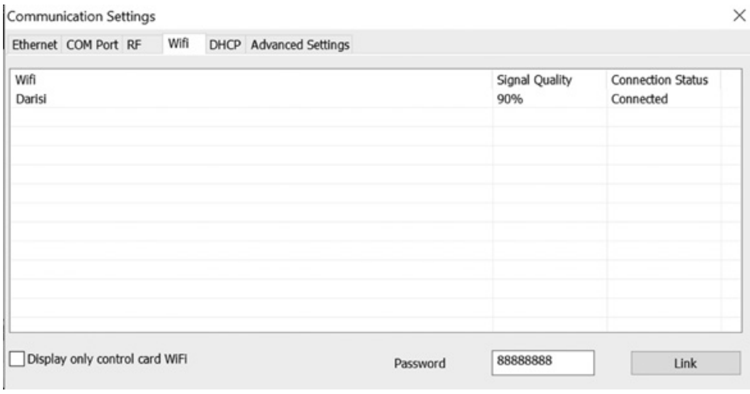


Figure 12: Searching for Wi-Fi signals of panels

On the up menu there are the possible communication ways, one of which is Wifi, if you click it you can see the list of wireless access points of LED panels, then you choose which panel you want to send program code, for example you can see there is one with name Daris that shows Signal Quality.

On the other menu Hardware Settings, we can choose the device and Commonly smart and send the code, see the following figure:

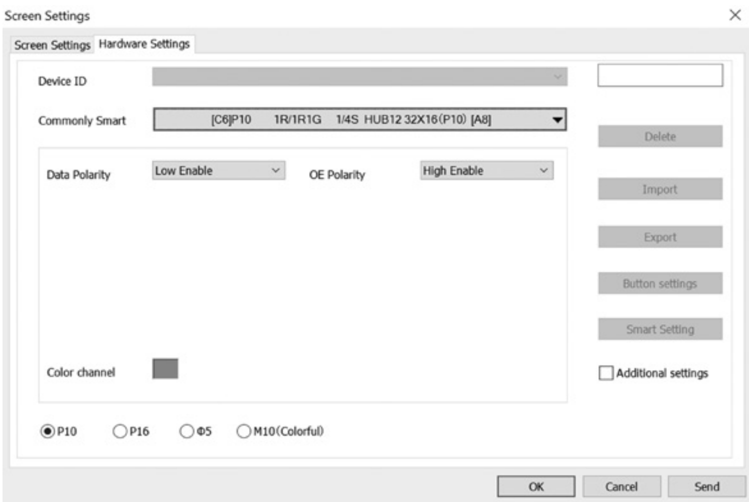


Figure 13: Hardware information and code sending

5. CONCLUSIONS

There are many applications and device who do use wireless technology. In our project this feature of panels who do have wireless card inside it was very helpful on communicating with the LED panels in our University campus. It was very difficult to send the changes on the code to each panel of each study room in our University, because also there are the panels so high put that couldn't be reached easily to send the code by USB. Thanks to wireless card each panel is working as access points, where the computer can easily connect to each panel and send the code.

This was very helpful with wireless technology, but as future work we do propose that there could be done also communication using RFID.

REFERENCES

[1] Milman-Halicias: Integrated electronics analog and digital circuits and systems, 1972.
[2] SK Bhattachary, Electrical and Electronic Engineering Materials, Khana Publishers, New Delhi, 2000.
[3] C programing with Arduino, author: Warwick Smith
[4] Philip Burgess, 32x16 and 32x32 RGB LED Matrix, Adafruit learning system
[5] D. Hearn, M. Pauline Baker: Computer Graphics with OpenGL, Third Edition, Pearson Prentice Hall, SAD, 2004.
[6] Introduction Engineering Technology, 2008.
[7] HD2016_Operation_manual_V1.0
[8] http://learn.adafruit.com/32x16-32x32-rgb-led-matrix
[9] http://www.circuitstoday.com/interfacing-8x8-led-matrix-with-arduino
[10] https://www.youtube.com/watch?v=7gKcGkaIUxM
[11] https://www. wspublishing.net/avr-c
[12] https://www.atmel.com
[13] Information Technology and information systems, group of authors, Subotica, 2011.

PRIVATNE BEZBJEDNOSNE KOMPANIJE U SISTEMU ODBRANE CRNE GORE

PRIVATE SECURITY COMPANIES IN THE DEFENSE SYSTEM OF MONTENEGRO

Željko Spalević[1]
Dražen Božović[2]
Ljubiša Konatar[3]

DOI: https://doi.org/10.31410/EMAN.2019.417

Apstrakt: *Ovaj rad bavi se razvojem privatne bezbjednosti i njene društvene uloge u sistemu odbrane sa posebnim osvrtom na odnosu privatne bezbjednosti i sistema odbrane kao najznačajnijeg dijela sistema nacionalne bezbjednosti. U istraživanju posebno je istaknuta mogućnost i potreba angažovanja privatnih bezbjednosnih kompanija kao privrednih subjekata u sistemu odbrane. U radu autori nastoje da daju odgovore na više pitanja: razvoj privatnih bezbjednosnih kompanija, njihovo normativno uređenje i angažovanje u sistemu odbrane. Posmatrano sa istorijskog aspekta, bezbjednost je oduvijek bila djelatnost kojom su se, uglavnom, bavile državne institucije (policija, vojska i obavještajno bezbjednosne službe). Usložavanje poslova državne uprave, povećanje preduzetničkih aktivnosti, kao i ograničeni kapaciteti državnog bezbjednosnog sektora za kvantitativno uvećan, a kvalitativno sve različitije lepeze bezbjednosnosnih zadataka, dovelo je do pojave i profilisanja različitih subjekata-oblika privatne bezbjednosti. Privatne bezbjednosne kompanije pored obezbjeđenja privatnog kapitala našle su svoje mjesto i u državnim organima (zaštitarski, i drugi stručni poslovi) ili se radi o poslovima od posebnog značaja za bezbjednost i odbranu.*

Ključne riječi: *bezbjednost, odbrana, privatne bezbjednosne kompanije, zaštita*

Abstract: *This paper deals with the development of private security and its social role in the defense system, with particular reference to the relationship of private security and defense systems as the most important part of the national security system. The research emphasized the possibility and the need to engage private security companies as economic entities in the defense system. In this paper, the authors try to provide answers to several questions: development of private security companies, their normative arrangement and engagement in the defense system. Observed from the historical point of view, security has always been an activity that was mainly dealt with by state institutions (police, military, intelligence and security services). Complicating public administration affairs, increasing entrepreneurial activities, and limited capacity of the state security sector for quantitatively increasing, and qualitatively, increasingly diverse security tasks, led to the emergence and profiling of various entities - forms of private security. Private security companies, in addition to securing private capital, have found their place in state bodies (security and other professional jobs) or they are jobs of special importance for security and defense.*

Keywords: *security, defense system, private security companies, protection*

[1] Docent, Univerzitet Donja Gorica, Crna Gora
[2] Docent, Nezavisni univerzitet Banja Luka, Bosna i Hercegovina
[3] Univerzitet EDUCONS, Sremska Kamenica, Srbija

1. UVOD

Posmatrano sa istorijskog aspekta, određeni oblici privatne bezbjenosti poznati su još od nastanka privatne svojine. Međutim, bezbjednost i odbrana oduvijek su bili zadaci kojima su se, uglavnom, bavile državne institucije (policija, vojska i obavještajno-bezbjednosne službe). Monopol države nad instrumentima sile vidno je ‘’oslabio” u protekle dvije decenije, najviše kao rezultat trenda globalizacije i privatizacije koji je zahvatio sve oblasti modernog društva. Nakon završetka Hladnog rata privatne bezbjednosne kompanije u velikoj mjeri počele su da pružaju usluge, kako u privatnom tako i državnom sektoru. Te usluge variraju od poslova fizičke i tehničke zaštite imovine i lica za potrebe fizičkih lica do vlada, multinacionalnih korporacija, međunarodnih organizacija, nevladinih agencija i ostalim nedržavnim subjektima koji, po pravilu, nisu djelovi državnog aparata.

Mnogi poslovi bezbjednosti u savremenim zemljama stavljeni su u nadležnost privatne bezbjednosti odnosno privatnih bezbjednosnih kompanija (PBK) kao npr. što su: fizička i tehnička zaštita, bezbjednosni konsalting, zaštita protivpožarna zaštita pa će se za potrebe ovog rada pod PBK podrazumijevati zaštitarske agencije za zaštitu imovine i lica.

Očigledno je da PBK nijesu neki prolazni fenomen ili pojava, već naprotiv, one će u budućnosti predstavljati veoma važnog snadbjevača bezbjednosnih usluga od značaja za odbranu. Privatizacijom bezbjednosti i njenom implementacijom u sistemu odbrane pružaju se velike mogućnosti, ali se javljaju i veliki rizici, posebno sa stanovišta bezbjednosti ljudi, imovine i samog sistema odbrane. Međutim, upotreba PBK može da izazove i različite nus pojave i pojača društvene tenzije, posebno ukoliko one stvore jake veze sa državnim institucijama i vojskom.

U vezi sa tim, u radu se na jedan generalni i normativno sistemski način sagledavaju PBK u savremenom konceptu nacionalne bezjednosti sa posebnim osvrom na mjesto i ulogu PBK u sistemu odbrane Crne Gore. Koncept odbrane podrazumijeva sveobuhvatan pristup i aktivan doprinos svih elemenata sistema nacionalne bezbjednosti i čitavog društva u odbrambenim pripremama i aktivnostima. Sistem odbrane Crne Gore čine međusobno povezani elementi koji djeluju sinhronizovano, u skladu sa konceptom odbrane i u cilju ostvarivanja odbrane Crne Gore.

2. PRIVATNE BEZBJEDNOSNE KOMPANIJE U CRNOJ GORI

U prethodnom periodu, PBK su prošle kroz fazu institucionalizacije, tj., razvoja i uspostavljanja svih elemenata sistema bezbjednosti i zaštite unutar poslovnih subjekata. To je omogućilo bolje pozicioniranje PBK u privrednim subjektima, čime je intenziviran njen razvoj kao integrisane bezbjednosti. Privatne specijalizovane agencije za obezbjeđenje posluju kao i drugi privredni subjekti, kadrove čine pored novih ljudi u ovoj oblasti i bivši pripadnici vojno policijskih snaga koji su nakon penzionisanja našli svoj angažman u privatnim kompanijama.

Prema profesoru Saši Mijalkoviću privatne bezbjednosne kompanije su privredni subjekti koji su registrovani da zainteresovanim fizičkim i pravnim licima, državnim institucijama, međunarodnim i nevladinim organizacijama ponude bezbjednosne usluge. Znači, riječ je o tzv. ‘’provajderima bezbednosti” koji komercijalnim pružanjem bezbednosnih usluga zadovoljavaju bezbednosne potrebe različitih kategorija klijenata[4].

[4] Mijalković, S.; Nacionalna bezbednost, Kriminalističko policijska akademija, Beograd, 2009, str. 102 i 103.

U prethodnom periodu u Crnoj Gori došlo je do naglog povećanja broja ‘’provajdera bezbjednosti” odnosno specijalizovanih privrednih subjekata koji nude bezbjednosne usluge. Povećanje podrazumijeva i stalni razvoj što potvrđuje jedno istraživanje, prema kom, zaključno sa 2016. godinom u Crnoj Gori u oblasti zaštite imovine i lica, ima 191 PBK, sa 3022 lica koja su nakon završenog zaštitarskog kursa dobila odgovarajuću dozvolu[5].

U Crnoj Gori zaštita lica i imovine koju ne obezbjeđuje država regulisana je Zakonom o zaštiti lica i imovine, prema kojem, djelatnost zaštite se obavlja kao fizička i tehnička zaštita. Ovim Zakonom je uređeno da se ‘’zaštita objekata i prostora u kojima se vrše djelatnosti od javnog interesa, djelatnosti koje predstavljanju povećanu opasnost za život i zdravlje ljudi, kao i objekti čijim oštećenjem ili uništenjem bi mogle nastupiti teže posljedice po život i zdravlje većeg broja ljudi definisani su kao obavezno štićeni objekti čija se zaštita vrši na osnovu plana zaštite” [6]. Ovim zakonom prepoznato je 13 kategorija obavezno štićenih objekata.

3. NORMATIVNO UREĐENJE PBK U SISTEMU ODBRANE CRNE GORE

Da je shvaćen značaj PBK kao činioca bezbjednosti u Crnoj Gori dokazuje i činjenica pravnog uobličavanja njihovog rada donošenjem zakona, gdje su PBK našle svoje mjesto pored angažovanja za privatno obezbjeđenje takođe i u državnim organima (zaštitarski i drugi stručni poslovi).

Prema osnovnim strategijsko-doktrinarnim dokumentima, u širem smislu, u posebne elemente sistema nacionalne bezbjednosti pored ostalih spadaju, agencije za privatno obezbjeđenje i zaštitarske službe[7] koje dopunjavaju funkciju bezbjednosti države.

Država u sektoru odbrane ima određene normativne zahtjeve, koji su specifični u odnosu na ostale segmente društva, a u skladu sa karakterom sistema odbrane. Osnove su postavljene Zakonom o odbrani kojim je definisano da se objektima od posebnog značaja za odbranu smatraju: objekti u kojima su smješteni tehnički sistemi, objekti u kojima se proizvode, skladište ili čuvaju predmeti ili vrše usluge za potrebe odbrane, investicioni objekti, kao i rejoni uz te objekte. Mjere zaštite objekata i rejona uz objekte iz od posebnog značaja, preduzimaju se kroz fizičko obezbjeđenje, mjere tehničke zaštite i druge mjere zaštite.[8]

Objekti od posebnog značaja za odbranu prepoznati su odgovaraćujom odlukom, gdje se između ostalih navode objekti kao što su aerodromi, heliodromi i luke[9]. Drugom odlukom prepoznaju se predmeti i usluge od posebnog značaja za odbranu[10] gdje su sa aspekta angažovanja PBK zanimljivi oprema za dobijanje i prečišćavanje vode, potom, žitarice, hljeb, tjestenine, povrće i voće, meso, mliječni proizvodi – dakle, hrana, izvori električne energije, ugalj, nafta i sklopovi za održavanje ovih ”predmeta”. Imajući i vidu da ove objekte država ne obezbjeđuje ali ih je prepoznala kao obavezno štićene objekte od javnog interesa koji su važni za život i zdravlje ljudi, a štite ih PBK za zaštitu imovine i lica, otvoren je prostor i za angažovanje PBK koje ionako već

5 Spalević, Z.Ž.; Spalević, Ž,; Konatar,Lj.; Obrazovanje službenika obezbjeđenja i detektiva, International Scientific Conference EMAN, Ljubljana, 2018, str. 877.

6 Zakon o zaštiti lica i imovine, „Sl. list CG” br. 43/2018, član 2 i 13.

7 Strategija nacinalne bezbjednost Crne Gore, Podgorica 2018, str. 16.

8 Zakon o odbrani, „Sl. list RCG”, br. 47/07, Sl. list CG”, br. 86/09, 88/09, 25/10, 40/11, 14/12 i 2/17., član 18-19.

9 Odluka o određivanju objekata ili djelova objekata i rejona uz objekte od posebnog značaja za odbranu, „Sl. list CG”, br. 45/08, 48/09, član 2.

10 Odluka o određivanju predmeta i usluga od posebnog značaja za odbranu, «Sl. list CG», br. 15/08.

obezbjeđuju ove objekte. Ovo potkrepljujemo činjenicom da je istim propisom uređeno da su usluge od posebnog značaja za odbranu, između ostalih, usluge elektronske komunikacije, poštanske usluge, proizvodnja hrane, održavanje saobraćajnica i saobraćajnih sredstva i održavanje sistema za ove usluge koje pružaju privredni subjekti a koje po sili zakona već obezbjeđuju PBK.

Sistemi, odnosno veliki tehnički sistemi značajni za odbranu prepoznati su odlukom Vlade Crne Gore[11] prema kojoj se navode privredni subjekti kao što su: Telekom, Radio-televizija Crne Gore, Montenegroairlines, Aerodromi Crne Gore, Željeznice Crne Gore, Elektroprivreda Crne Gore, Jugopetrol, Bonus petrol, Luka Bar, Željezara Nikšić, Kombinat aluminijuma, dakle privredni subjekti iz oblasti saobraćaja, energetike ili telekomunikacija. Svi navedeni privredni subjekti predstavljaju obavezno štićene objekte koje obezbjeđuju PBK.

U skladu sa nevedenim propisima ali i savremenim trendovima, potrebama i vodeći se principom racionalnosti mogućnost angažovanja PBK normativno je omogućeno i u sektoru odbrane pa čak i za poslove obezbjeđenja sa aspekta odbrane važnih vojnih objekata i infrastrukture.

Tako se u skladu sa Pravilom službe Vojske Crne Gore kada se govori o čuvarskoj i stražarskoj službi, za obezbjeđenje vojnih objekata može se angažovati specijalizovana agencija, za obezbjeđenje, a ljudstvo potrebno za fizičko obezbjeđenje i tehnička sredstva upotrebljavaju se u kombinaciji sa inžinjerijskim obezbjeđenjem[12].

Način fizičkog i tehničkog obezbjeđenja i potrebna dokumentacija za objekte za proizvodnju i skladištenje eksplozivnih materija utvrđeni su Pravilnikom o proizvodnim i skladišnim objektima za eksplozivne materije. Ova dokumentacija se odnosi dokumentaciju za izdavanje saglasnosti na projektnu i investiciono-tehničku dokumentaciju za izgradnju proizvodnih i skladišnih objekata, sa aspekta zaštite od požara, bezbjednosna rastojanja i sl. Naravno, fizičko i tehničko obezbjeđenje ovih objekata vrši se na osnovu propisa kojima je uređena zaštita lica i imovine.[13] Potrebne saglasnosti i dozvole izdaje nadležno ministarstvo pa su privredni subjekti u sistemu odbrane dužni da poštuju propise. Dakle, ovaj pravilnik se odnosi na konkretne subjekte koji imaju ova skladišta kao sto su rudnici, građevinska preduzeća niskogradnje, fabrike za proizvodnju eksploziva i naoružanja pa i na vojsku.

Imajući u vidu da je veliki dio djelatnosti sektora odbrane oduvijek bio povjerljivog karaktera, a posebno danas kada je Crna Gora dio sistema kolektivne odbrane, to je za njegovo funkcionisanje od posebnog značaja Zakon o tajnosti podataka[14]. Ovaj zakon propisuje da pored ostalih državnih subjekata obavezu postupanja u vezi tajnosti podataka imaju i ‘’druga pravna lica kada u vršenju zakonom utvrđenih poslova, odnosno izvršavanja ugovorenog posla saznaju za tajne podatke”.[15] Dakle, kako se PBK odnosno zaštitarske agencije registruju i kao pravno lice i obezbjeđuju neke vojne objekte - proizilazi da se ovo i na njih odnosi. U cilju zaštite tajnih podataka ali i registracije PBK - bezbjednosnu provjeru odgovornog lica PBK vrši, pored ostalih, i Agencija za nacionalnu bezbjednost (ANB). Ne treba zanemariti činjenicu da su tajni podaci sadržani u raznim planovima koji se odnose na obaveze privrednih društava u oblasti elektronskih komunikacija i poštanske djelatnosti a koje Ministrastvo odbrane u vidu Izvoda iz Plana dostavlja privrednim društvima koji proizvode

11 Odluka o određivanju velikih tehničkih sistema od značaja za odbranu, „Sl. list CG”, br. 15/08.

12 Pravilo službe Vojske Crne Gore, Ministarstvo odbrane Crne Gore, broj 813-128/16 od 14.01.2016, tačka 155 i 157.

13 Pravilnik o proizvodnim i skladišnim objektima za eksplozivne materije, Sl. list CG”, br. 49/08 i 31/14.

14 Zakon o tajnosti podataka, „Sl. list CG” broj 14/08, 76/09, 41/10, 40/11, 38/12, 44/12, 14/13, 18/14 i 48/15

15 Zakon o tajnosti podataka, „Sl. list CG” broj 14/08, 76/09, 41/10, 40/11, 38/12, 44/12, 14/13, 18/14 i 48/15, član 2.

predmete i vrše usluge od posebnog značaja za odbranu[16]. Ovo nameće dodatnu obavezu privrednim društvima da koriste fizičku i tehničku zaštitu a kako se radi o najčešće o privatnim privrednim društvima onda su angažovane i PBK.

Kada se PBK kao ponuđači jave na javni oglas koji se odnosi na nabavku roba ili vršenju usluga onda trebaju imati dozvolu za pristup tajnim podacima što se odnosi i na zaposlenog[17] u PBK.

4. ANGAŽOVANJE PBK U SISTEMU ODBRANE CRNE GORE

Kao i drugi subjekti savremenog društva u cilju optimizacije i razvijanja funkcionalnog ali i racionalnog sistema odbrane, MO i VCG u oblasti zaštite životne sredine, zaštite od požara ili instaliranje određenih zaštitnih sistema oslanjaju se na PBK jer ih nije racionalno samostalno razvijati.

Do sada je MO putem javnih oglasa koristilo neke od usluga PBK. U oblasti fizičko-tehničke zaštite imovine i lica, angažovanje privatnih kompanija zastupljeno je prije svega za nabavku i instaliranje opreme za tehničku zaštitu, video nadzor i dr. Ovi poslovi se u skladu sa zakonom realizujuju putem tendera kako javnih tako i povjerljivih. Jedan od primjera je i tender i ugovor o isporuci i ugradnji video nadzora za objekat Zdravstvenog centra bezbjednosnih snaga. Takodje, MO je u aprilu 2008. povjerilo jednoj PBK fizičko obezbjeđenje, odnosno zaključilo ugovor za fizičko obezbjeđenje vojnog odmarališta ‘’Valdanos”.

VCG posjeduje i obezbjeđuje tzv. ‘’neperspektivne” ili suvišne objekte čiji se broj stalno smanjuje, ali to ne znači da će se izgubiti potreba za korišćenjem PBK za zaštitu, jer se PBK mogu koristiti i za određene objekte koje vojska aktivno koristi čime bi se veliki broj pripadnika VCG angažovanih na poslovima obezbjeđenja mogao vratiti u operativne sastave VCG.

Do ovog zaključka se dolazi i analizom godišnjih izvještaja o stanju u VCG, kao npr. za 2013. godinu u kojem se ističe da se na obezbjeđenju neperspektivnih vojnih objekata i dnevno angažuje značajan broj pripadnika Vojske (jedinice čuvarske službe) ili se odvajaju značajna sredstva za plaćanje drugih privremeno angažovanih lica. Ukupni troškovi za obezbjeđenje ovih objekata godišnje iznose oko 220.000 €. Osim finansijskih troškova, ljudstvu angažovanom na obezbjeđenju ovih objekata onemogućeno je da razvija sposobnosti i izvršava prioritetne namjenske zadatke”.[18]

5. ZAKLJUČAK

Iz svega izloženog, može se zaključiti da je normativno uređeno da se PBK mogu angažovati u sistemu odbrane. Međutim, na osnovu prikazanih primjera ima prostora za dodatno angažovanje u oblastima kako zaštite obavezno štićenih objekata tako i ‘’zaštite predmeta i usluge od posebnog značaja za odbranu”. Dakle, ostaje otvoreno pitanje angažovanja kapaciteta PBK u uslovima ratnog i vanrednog stanja stanja. Pored zaštitarske uloge u normalnim redovnim okolnostima ove kompanije su imale i svoje mjesto i ulogu i za vrijeme vanrednog i ratnog stanja što je regulisano planovima odbrane, a najčešće u sastavima jedinica teritorijalne odbrane, jedinica policije ili civilne zaštite. Drštvene okolnosti su se u međuvremenu bitno promijenile. Privatizacija je kao što

16 Uputstvo za izradu plana odbrane Crne Gore, „Sl. list CG”, br. 19/08, tačka 4.

17 Uredba o bližim uslovima i načinu sprovođenja industrijskih mjera zaštite tajnih podataka, „ Sl. list CG” br. 08/11.

18 Izvještaj o stanju u Vojsci Crne Gore u 2014. godine, Ministarstvo odbrane Crne Gore, mart 2015, str. 26.

smo pomenuli zahvatila i sektor bezbjednosti, a u fizičko tehničkoj zaštiti imovine i lica preovladale su PBK. Sistem odbrane i bezbjednosti je takođe pretrpio velike promjene. Međutim, država ima potrebu da po potrebi angažuje ove neosporno velike potencijale za sistem odbrane.

Ovo pitanje zahtijeva studiozan pristup prije svega jer su PBK u nadležnosti MUP-a, koji takođe ima potrebe za njihovo angažovanje za vrijeme vanrednog i ratnog stanja. U tom smislu, potrebno je sagledati potrebe sektora odbrane za PBK pa isto iskoordinirati sa MUP i planirati planovima odbrane. S obzirom na faktičko stanje obavljanja tih poslova u mirnodopskom - redovnom stanju, realno je da se i u vanrednim i ratnim okolnostima angažuju, a što treba predvidjeti i u planovima za krizno planiranje i planovima odbrane.

Angažovanja PBK u sistemu odbrane Crne Gore u savremenim uslovima su objektivna potreba. Benifiti angažovanja bili bi višestruki, jer bi rasteretio operativne jedinice VCG i službe ministarstva za obavljanje fizičkog i tehničkog obezbjeđenja objekata i time racionalizovao sistem odbrane i smanjilo troškove. PBK pretstavljaju i odbrambeni potencijal za stavljanje u funkciju za vrijeme vanrednog i ratnog stanja.

Na kraju, razvoj PBK otvara mogućnost da se razvojem privatno javnog partnerstva razvije program organizovanog prelivanja ‘’neperspektivnih” vojnih kadrova u PBK, od čega je korist višestuka (PBK dobijajaju obučeno ljudstvo, VCG se otvara mogućnost za redovno podmlađivanje kadrova, pojedinci produžavaju svoj radni vijek, a država štedi jer ne opterećuje penzioni fond). Međutim, projekte saradnje treba uvoditi fazno, prije svega u one dijelove sistema odbrane gdje ih je najlakše ostvariti, tako da uz ozbiljnu namjeru, jasne ciljeve i transparentne ocjene, uspjeh ne može izostati.

LITERATURA

[1] Izvještaj o stanju u Vojsci Crne Gore u 2014. godine, Ministarstvo odbrane Crne Gore, mart 2015.

[2] Odluka o određivanju objekata ili djelova objekata i rejona uz objekte od posebnog značaja za odbranu, “Sl. list CG”, br. 45/08, 48/09.

[3] Odluka o određivanju predmeta i usluga od posebnog značaja za odbranu, “Sl. list CG”, br. 15/08.

[4] Odluka o određivanju velikih tehničkih sistema od značaja za odbranu, “Sl. list CG”, br. 15/08.

[5] Pravilo službe Vojske Crne Gore, Ministarstvo odbrane Crne Gore, broj 813-128/16 od 14.01.2016.

[6] Pravilnik o proizvodnim i skladišnim objektima za eksplozivne materije, Sl. list CG”, br. 49/08 i 31/14.

[7] Spalević,Z.Ž.; Spalević,Ž,; Konatar,Lj.; Obrazovanje službenika obezbjeđenja i detektiva, International Scientific Conference EMAN, Ljubljana, 2018, str. 877.

[8] Strategija nacionalne bezbjednost Crne Gore, Podgorica 2018.

[9] Uputstvo za izradu plana odbrane Crne Gore, “Sl. list CG”, br. 19/08.

[10] Uredba o bližim uslovima i načinu sprovođenja industrijskih mjera zaštite tajnih podataka, “Sl. list CG”, br. 08/11.

[11] Zakon o odbrani, “Sl. list RCG”, br. 47/07, Sl. list CG”, br. 86/09, 88/09, 25/10, 40/11, 14/12 i 2/17.

[12] Zakon o tajnosti podataka, ‘’Sl. list CG” broj 14/08, 76/09, 41/10, 40/11, 38/12, 44/12, 14/13, 18/14 i 48/15.

[13] Zakon o zaštiti lica i imovine, ‘’Sl. list CG” br. 43/2018.

STRUCTURED IMPLEMENTATION OF A RISK MANAGEMENT SYSTEM ON THE EXAMPLE OF A MEDIUM-SIZED INDUSTRIAL ENTERPRISE

Peter C. G. Davids[1]
Milan Fekete[2]

DOI: https://doi.org/10.31410/EMAN.2019.423

Abstract: *Risk management is not always an intentionally controlled process. There are basic structures considering some of the obvious risks but those structures are often lacking proper documentation and implementation. As the scope for risk management has widened more and more during the last 10 years, it is absolutely essential that SME's, the same as distinguished private companies, large private companies and public companies, run a modern structured and fully implemented risk management system. According to § 91 II of the German Stock Corporation Act, it is a part of the care obligations of the members of the Management Board (analogous to Limited Companies' managing directors, see § 43 I and II of the German Limited Companies Act) to establish an appropriate risk management system and an internal monitoring system. An additional actual demand for risk management is stipulated in the new ISO 9001:2015 quality management standards.*

On the example of a company, which is a SME involved in the chemical industry, the requirement for risk management, which is codified in the described regulations, has so far been taken into account only to a limited extent. The goal of the paper is therefore to build options for implementing a risk management as an integral part of monitoring and control system on the existing structures within the corporate planning. It must also be ensured that the identification and proof of all of the measures in this respect should be carried out in a manner that is comprehensible for the auditors, because „... the auditor must support the Supervisory Board by examining the risk-early warning system as a part of the audit of the annual financial statements and, in the context of the management report, the disclosure of risks to the future development of the company and reporting on the outcome of the audit" (Wirtschaftsprüferhandbuch, 2000). Within the framework of the presented paper, basic structures will be created in order to subsequently enable a gradual refinement of risk management as the result of an exploratory process.

Keywords: *management, risk management, quality management, medium-sized enterprise, chemical industry.*

1. INTRODUCTION

The company in which the risk management system was analyzed is an enterprise involved in the chemical industry situated in Thuringia / Germany. Especially, it is mining for various kinds of salt through solution mining and subsequently processing and refining these into solid and liquid end-products.

The current status of corporate management of the example company has already been explored in recent surveys for existing approaches to risk management and a systematization and categorization of risks already identified [1]. As a result of a subsequent analysis of strengths and

1 Comenius University in Bratislava, Faculty of Management, Department of Strategy and Entrepreneurship, Odbojarov 10, Bratislava 820 05, Slovakia

2 Comenius University in Bratislava, Faculty of Management, Department of Strategy and Entrepreneurship, Odbojarov 10, Bratislava 820 05, Slovakia

weaknesses of the existing risk management system, previously unrecognized risks have been addressed.

Subsequently, solutions are to be developed to enable the integration of living risk management as part of a corporate governance. After all of the relevant risks have been analyzed and described, a risk aggregation is carried out in order to assess the overall risk.

For the risk management to be understood as a control cycle, it is essential to install and operate a related controlling function. At the end of the article, focus is on creating a risk manual, combined with further recommendations for action points in the future.

In a critical appraisal, the results described in this article are examined for their possible scope of realization in the example company and open issues are addressed.

2. METHODOLOGY

In a preceding literature study, about 60 books and articles about potash industry have been reviewed regarding approaches to risk management and its specialties in the solution mining industry. Authors found out that at present, there is no specific literature on these disciplines in the field of solution mining and its special requirements.

In the context of this article, the topic should be intensified on the basis of an example company in the form of a case study. Goal is to find out, how the existing basic risk management of the example company can be approved considering the special risks of solution mining operations.

3. RESULTS

Standard controlling, risk management, and early warning systems have already been explored at a fairly high level [2], [3]. The available literature in the field of potash mining reflects the entire development of potash mining from the beginning. In addition, there are scientific papers dealing with partial aspects of this discipline. Although the extraction of carnallite by leaching has already begun to be explored in the late 1970s, especially the technical feasibility has established itself as a research object. Geological risks have been identified in part, but stringent interdisciplinary risk management has not yet been taken up as a research object. In summary, it can be stated that in the literature evaluated by the authors, only basic theoretical approaches to risk management have been found, but not in the field of solution mining of potash salts. Therefore, these basics need not be further investigated. As a result, there is a need to scientifically approach the management of specific risks to solution mining.

To involve risk management, first, the responsible managers must be identified. Due to the profit center organization of the company, the risk management should be assigned to the senior management (managing directors) and operated centrally from there. It makes sense to use the controller as the chief risk manager and chairman of a risk committee [4]. The risk committee reports to management and supervisory board. It should consist of the following group of persons in the sample company:

- Controller (Chairman),
- Chief Operations Officer (COO),

- Head of personnel & organization,
- Head of IT,
- Head of Accounting,
- Head of profit center A,
- Head of profit center B.

The committee should meet at regular intervals. During the meetings, minutes should be filed out of which dates, measures, and responsibilities emerge. At the same time, this has the advantage of providing auditable documents which enable evidence of living and evolving risk management. The minutes have to be archived chronologically and taken to other risk related documents.

In the run-up to risk identification, the Risk Committee should obtain corresponding literature and checklists [5]. These checklists are usually printed in the corresponding literature and require adaptation and supplementation to the respective company situation. In order to adapt, supplement, and structure these checklists, a meeting of the Risk Committee is necessary. In the course of deriving the typical risks for the named industry it is necessary to simulate combinations of risks which may correlate. For this, individual employees from the special departments are to be called in. In workshops, the checklists should then be coordinated and refined in areas using creativity techniques.

At the end of the adjustment process, the adjusted checklists should be reviewed critically in the plenum of the Risk Committee and are then being approved. They serve as the basis for the derivation of the risk fields in the next process step. From the answers to the questionnaire of the checklists, it is basically clear whether or not the requested subject is potentially risky. At this stage, the potential extent of the risk is not yet to be addressed.

In the next step, the identified risks should be assigned to the main categories which is a state-of-the-art procedure. The basis for this can be taken from the in-tabular form established result of the survey of the current state. Here, too, the literature offers a rudimentary solution [4] that only needs to be adapted to the circumstances in the company. The goal is not to develop as many subcategories as possible. However, a certain differentiation is needed in order to arrive at an individual risk profile for the company.

After the risks have been first identified neutrally and assigned to the categories, the next step is to determine the potential threat of each individual risk and combination of risks. For this, the risks are to be seen gross, i.e. without assessing the impact of potential controlling measures. In order to enable such a rating, it is recommended to set up tables per risk category. The probability of occurrence is rated on a scale from 1 (very low) to 5 (very high). This scale should be backed by ratios between 5% and 95%. In addition, the probable extent of damage is estimated with the same scale. These scale values should be underlaid with value-in-Euro ranges, e.g. scale value 1 corresponds to the range of 1,000 - 5,000 euros, etc. In the third column, a loss factor is then determined by multiplying the first two columns (sample is shown in annex 1). In this way, a priority list is drawn up, which determines which of the risks pose a particularly high risk and which are initially or completely negligible.

Risk management aims to bring each individual risk below the risk threshold set by the company. For the example enterprise, this threshold must first be defined. Of course, a risk threshold can be arbitrarily defined at any time as a desired value. However, it is better to first plan risk

management measures in such a way that the risk is reduced to a minimum, with reasonable non-excessive use of these measures. The aggregation of the individual risks by measures results in a provisional target value, within the framework of which the risk control measures have to move. If this value is divided by the number of identified risks, the result is the alternatively average threshold per individual risk. This average should then be extended to a corridor, giving the following picture:

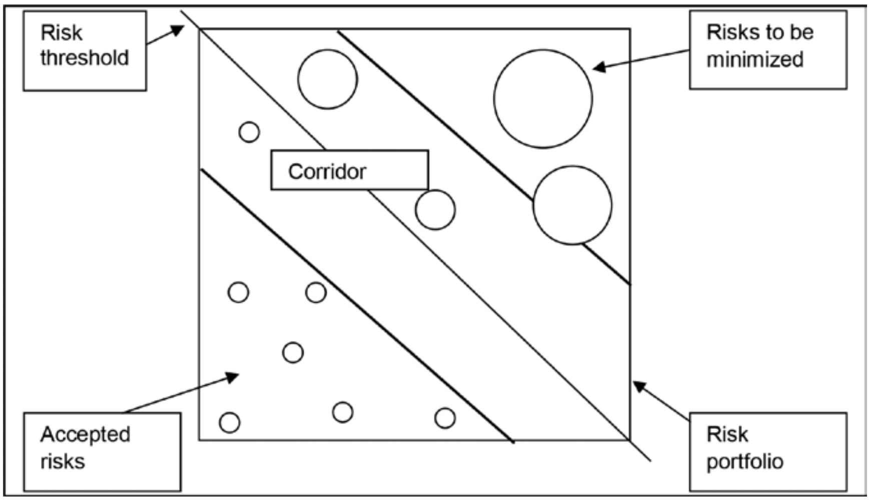


Figure 1: Risk portfolio *(Source: authors)*

The risk control itself is determined by the measures:

- Risk aversion,
- Risk reduction,
- Risk transfer, and
- Carrying the risk.

Subsequently, the risks have to be reassessed taking into account the planned measures with regard to probability of occurrence and extent of damage. For all risks / values above the target corridor, active control measures are to be evaluated and described in their impact. It is important to keep an eye on the costs of these control measures and also to properly document them. Only in this way it can be ensured that a reduction measure is not overcompensated by its high costs and reduced to absurdity. All control measures should be precisely documented and included in the risk manual.

Risk transparency is an important prerequisite for further development of the risk management system. Further research needs to be carried out pointing to unique areas of the business and possible interdependencies between those areas.

The risk manual should be designed as the "brain" of risk management and be the most important tool and working document. Auditors will dutifully ask for documentation of risk management efforts as part of their audit of the annual financial statements. This alone makes it necessary to keep the handbook as a central supporting document and constantly updated if necessary. The risk manual could have the content like shown in ANNEX 3. Of course, the manual may also consist of several folders. On the basis of the risk manual, a filing system is also to be organized which records documents that are no longer needed (old minutes of meetings, etc.). With increasing complexity, the manual would no longer fulfill its intended purpose. Again, a current occupation with the risk manual as such is indicated to keep this always up to date.

4. CONCLUSION

The complexity of the matter shows that risk management cannot be realized „just like that". In addition, this case is an open-heart surgery. The business cannot be stopped and yet existing structures must be partially broken up, changed and expanded. It is expected that this will certainly not happen without resistance.

First, the project should be presented to the company in general, for example in the context of a company meeting, and the reasons for the introduction of risk management should be explained. For this purpose, an absolutely positive use-conveying presentation is to be chosen, so that the ground is prepared for the future that every employee thinks „in risks", at least as far as his own job is concerned. At the same time, the Risk Committee should be introduced as a contact person in risk matters. Thus, the workforce is prepared and no one is surprised if examinations may be carried out at his or her workplace. Each of the described measures of the introductory phase requires intensive preparation. Committee staff should be largely exempted and substitution must be organized. This additional burden will be reflected in overtime for many employees. This fact must also be largely planned in advance so that the employees also have the opportunity to adapt to it.

The start of the project should be clearly defined and initiated by a constituent meeting of the Risk Committee. This ensures that everyone involved knows that the introductory phase is now irrevocable. First measures are to be decided immediately, such as the procurement of literature, etc. for the initial information. A network plan should already be drawn up and decided upon, which will phase out the planned time frame of the project at first. In order not to waste time, it makes sense to first set the period for the entire project to half a year. The network plan has to be constantly updated and checked for its temporal feasibility. Each individual measure should be underlaid with the start and end time. The goal is not to get done in shortest time possible but simply to bring a certain amount of tautness into the processes. Thus, the time argument is secondary only. Primarily, problems should be dealt with and periods should be extended if necessary. In doubt, accuracy precedes speed. All phases of the project should run one after the other in the order described above as they build on each other. Only when you can be sure that you can complete a phase with a clear conscience you should do so. The approval of each phase should take place during a Risk Committee meeting after a final session. This psychological moment ensures that one mentally abandons the old phase and deals with the next phase from now on. The risk manual as the most important document for future risk management should be kept from the beginning and be a constant companion. Initially an empty folder, it will fill up and absorb the results of the progressing phases. The manual grows in parallel with the increasing expansion of risk management. Thus, the current state of the project is always documented and allows a comparison with the goals set by the network plan in the context of project controlling. Under no circumstances the risk manual should be perceived as an annoying side effect and only be created after completion of the introductory phase.

5. CRITICAL APPRAISAL

The realization and the success of the project initially depend essentially on the attitude of everyone to really want to operate a risk management. The legal „must" is no guarantee for a positive attitude of the protagonists to the risk challenge. There is at least a risk that the introduction of risk management will only be seen as a supplier of additional work. Ultimately, this

could in turn have an impact on the risk identification phase. Since the risk inventory created, for the first time forms the basis for all risk management, a possible demotivation of the parties involved could lead to friction and partial failure of the project. This must be achieved by a comprehensive education and positive motivation (not with raised index finger!). The risk management inherent risk lies in the initial apparent overweight which it is operated with. Since it is an innovation in the company, it is automatically dealt more with than with the functions that are already in routine use. This can lead to a hedging „risk prevention management" because risk in mind is usually anchored as something bad and threatening. This attitude leaves no room for the use of opportunities.

A practiced risk culture is desired and essential for the further success of risk management. But safety thinking should not be overstated here. The extent of the risk culture in the company cross-sections, however, will remain an imponderable. Further and constant research on the industry-typical unique risks is absolutely necessary.

One question that could not yet be clarified was the risk to the company from risk aggregation. Adding up the static risks of all risks identified in the company, one arrives at a value that the company can no longer bear and certainly drives it into insolvency. Since it is unlikely that all risks will occur together at one time, it will probably not come to this incident.

REFERENCES

[1] DAVIDS, PETER C.G. (2016). *Evaluation and Treatment of Selected Risks in the Solution Mining Industry.* In: Proceedings of the 4th International Conference Innovation Management, Entrepreneurship and Corporate Sustainability, Prague, May 2016
[2] HORVÁTH, PÉTER. (2001). *Controlling.*
[3] KENDALL, ROBIN. (1998). *Risk Management: Unternehmensrisiken erkennen und bewältigen*.
[4] HORNUNG, KARLHEINZ und REICHMANN, THOMAS und DIEDERICHS, MARC. (1999). *Risikomanagement Teil I: Konzeptionelle Ansätze zur pragmatischen Realisierung gesetzlicher Anforderungen*. In: Controlling, July 1999, Heft 7, S. 317 – 325
[5] HINTERHUBER, HANS und SAUERWEIN, ELMAR und FOHLER-NOREK, CHRISTINE. (1998) *Betriebliches Risikomanagement.*

ANNEXES

ANNEX 1: Risk Assessment List
ANNEX 2: Description of risks, category "Marketing & Sales"
ANNEX 3: Risk Manual (Index)

ANNEX 1

Risk Assessment List

Risk description	Probability of occurrence	Probable extent of damage	Loss factor
Risk A	4	5	20
Risk B	3	4	12
Risk C	3	2	6
Risk D	1	2	2
…	…	…	…
.	.	.	.
.	.	.	.
.	.	.	.

(Source: authors)

ANNEX 2

Description of risks, category "Marketing & Sales"

Risk	Cause	Impact	Extent of damage	Probabiliy of occurence	Non-quantifiable impact
Acquisition of new customers	Market data not sufficiently known	Wrong reaction to market and competitors	5 Mio. Euro (related to planned gains in turnover)	40% because the market is explored at 60%	Loss of image
New product is missing first customers	Competitor appeared faster in the market place	Revenue target jeopardized	10 Mio. Euro	50%	Ommitting follow-up orders
Recoverability of receivables	Risk of default in retail business	Liquidity, P&L result	25 Mio. Euro	5%	-
…	…	…	…	…	…
.	.	.	.	.	.
.	.	.	.	.	.

(Source: authors)

ANNEX 3

Risk Manual (Index)

1.) General information

2.) Fundamentals of Risk Management
    2.1) Risk management goals
    2.2) Risk identification
    2.3) Risk categorization
    2.4) Risk assessment
    2.5) Risk management
    2.6) Risk control

3.) Organization
    3.1) Development of organization
    3.2) Process organization
    3.3) Risk committee
    3.4) Risk owners
    3.5) Reporting

4) Risk Data Sheets
    4.1) Risk checklists
    4.2) Risk assessment lists
    4.3) Risk documentation
    4.4) Measures for Risk Control

5.) Other
    5.1 Minutes of Risk Committee Meetings
    5.2 Resolutions of the Risk Committee
    5.3 Ongoing controlling reports
    5.4 To-do list / notes
    5.5 Review and Update Notes

SPREMNOST NA PLAĆANJE CJENOVNE PREMIJE ZA EKOLOŠKE PREHRAMBENE PROIZVODE

WILLINGNESS TO PAY THE PRICE PREMIUM FOR ECO-FOOD PRODUCTS

Marija Ham[1]

DOI: https://doi.org/10.31410/EMAN.2019.431

Sadržaj: *Cjenovna premija, odnosno viša cijena u odnosu na konvencionalne proizvode, prisutna je danas kod većine ekoloških proizvoda. Ona može biti rezultat cjenovne strategije odnosno strategije diferencijacije brenda, ali i stvarnog višeg troška proizvodnje. Marketerima ekoloških proizvoda, a samim time i istraživačima u predmetnom području, stoga je od velike važnosti razumjeti čimbenike koji utječu na spremnost na plaćanje cjenovne premije za ekološke proizvode. U nekim se istraživanjima namjera kupnje ekoloških proizvoda izjednačava, odnosno mjeri upravo pomoću varijable spremnost na plaćanje cjenovne premije.*

U Hrvatskoj je upravo kupnja ekoloških prehrambenih proizvoda najrazvijenija i najprihvaćenija kada su u pitanju kupnje ekoloških proizvoda, a predstavlja ujedno i najprihvaćeniji oblik ekološki usmjerenog ponašanja. Kupnja ekoloških prehrambenih proizvoda prestavlja stoga primjeren kontekst za ovakvo istraživanje, a kako bi se doprinijelo razvijanju spoznaja i stvaranju baze znanja koja se dalje mogu primijeniti i na druge kategorije proizvoda i druge oblike ekološki usmjerenog ponašanja.

Svrha ovog rada je identificirati čimbenike koji utječu na spremnost potrošača da plate višu cijenu prehrambenog proizvoda u odnosu na konvencionalne proizvode, a koja proizlazi iz ekoloških obilježja proizvoda, odnosno tzv. cjenovnu premiju. Istraživanje je provedeno na uzorku od 411 ispitanika iz istočne Hrvatske koji predstavljaju osobe koje obavljaju kupovinu većine namirnica za kućanstvo. Rezultati provedene regresijske analize pokazali su da najjači pozitivan utjecaj na spremnost za plaćanje cjenovne premije imaju stavovi prema okolišu, a gotovo jednako snažan prediktor je i povjerenje u ekološke proizvode i oznake. Potrošači koji su zabrinuti za stanje okoliša i svoju ulogu u tome vide važnom, bit će spremni platiti više za proizvode koji pozitivno doprinose tom, njima važnom pitanju, a očekivano je velika važnost i povjerenja u vjerodostojnost ekoloških proizvoda i oznaka. Nadalje potrošači koji drže da je doprinos lokalnom gospodarstvu izuzetno važno pitanje, bit će spremni kupovati te lokalne i domaće proizvode i unatoč višoj cijeni. Nešto slabiji, ali također statistički značaj utjecaj na spremnost za plaćanje cjenove premije utvrđen je i kod konstrukta percipirano znanje o ekološkim pitanjima te stavovi o zdravlju.

Implikacije ovih rezultata ukazuju na zaključak kako je za marketere ekoloških prehrambenih proizvoda osobito važna edukacija potrošača koja će im omogućiti da razumiju učinke ekoloških prehrambenih proizvoda kako na okoliš, tako i na lokalno gospodarstvo, ali i na njihovo zdravlje. Osobito je pri tome važno obratiti pozornost na vjerodostojnost, provjerljivost i transparentnost tvrdnji kako bi se izgradilo povjerenje, ali i na osnaživanje potrošača i podizanje razine percipiranog znanja. Potrošači koji imaju visoku razinu povjerenja, ali i samopouzdanja vezano uz vlastito znanje, bit će skloniji svoje stavove, ali i znanje prenositi i na članove svojih referentnih skupina. U teorijskom smislu, ovaj rad doprinosi spoznajama o utjecajnim čimbenicima na varijablu: spremnost na plaćanje cjenovne premije za ekološke proizvode, a koja je u ranijim istraživanjima identificirana kao jedna od ključnih odrednica ekološki usmjerenog ponašanja.

Ključne riječi: *cjenovna premija, ekološki prehrambeni proizvodi, spremnost na plaćanje, stavovi, povjerenje, percipirano znanje.*

---

[1] Ekonomski fakultet u Osijeku, Gajev trg 7, 31000 Osijek, Hrvatska

Abstract: *The price premium, i.e. the higher price compared to conventional products, is present today with most ecological products. It can be the result of a price strategy or a strategy of brand differentiation and also the result of an actual higher cost of production. It is of great importance for marketers of environmental products, and consequently the researchers in the field, to understand the factors that influence the willingness to pay the price premium for ecological products. In some studies, the intention of purchasing ecological products is equal to and measured precisely with the variable: the willingness to pay the price premium.*

In Croatia, the purchase of eco-food products is the most developed when it comes to buying ecological products, and is also the most accepted form of ecologically oriented behavior. The purchase of eco-food products is therefore an appropriate context for this research, in order to contribute to cognitions that can be further applied to other product categories and other forms of eco-behavior.

The purpose of this paper is to identify the factors that influence the willingness of consumers to pay the price premium resulting from the ecological features of the product. The survey was conducted on a sample of 411 primary shoppers from eastern Croatia. The results of the regression analysis revealed that environmental attitudes have the strongest positive impact on willingness to pay the price premium, and almost equally strong predictor is the confidence in ecological products and labels. Consumers who are concerned about the state of the environment and perceive their role in this regard as important, are willing to pay more for products that positively contribute to this important issue. Also, as expected, there is a high importance of trust in the credibility of ecological products and labels. Furthermore, consumers who believe that contributing to the local economy is an extremely important issue will be willing to buy local products despite a higher price. A somewhat weaker but also statistically significant influence on the willingness to pay the price premium was found in the constructs: perceived knowledge of environmental issues and health related attitudes.

The implications of these findings suggest that for eco-food marketers, it is particularly important to educate consumers, enabling them to understand the effects of ecological food products on the environment and on the local economy as well as on their health. It is important to pay attention to the credibility and transparency of the claims in order to build trust, but also to empower consumers and raise the level of perceived knowledge. Consumers who have a high level of trust and self-confidence related to their own knowledge will be more inclined to share their attitudes and transfer knowledge to members of their reference groups. In a theoretical sense, this paper contributes to the cognitions on influencing factors on the variable: the willingness to pay the price premium for organic products, which has been identified in previous research, as one of the key determinants of eco-directed behavior.

Keywords: *price premium, organic food products, willingness to pay, attitudes, trust, perceived knowledge.*

---

1. UVOD

Neupitno je kako je u većini slučajeva kod ekoloških proizvoda trenutno prisutna cjenovna premija. Ova premija, odnosno viša cijena u odnosu na konvencionalne proizvode, može biti rezultat cjenovne strategije odnosno strategije diferencijacije brenda, ali i stvarnog višeg troška proizvodnje. Stvarni viši trošak posljedica je činjenice da proizvođači ekoloških proizvoda najčešće imaju dodatne troškove koji proizlaze iz proizvodnog procesa koji je usklađen sa zahtjevima zaštite okoliša, lokalne zajednice i društva u cjelini. Nabavka nove ekološki prihvatljivije tehnologije, ugradnja pročistača vode i zraka, razvrstavanje i ekološki prihvatljivo zbrinjavanje otpada predstavljaju (barem kratkoročno) veći trošak proizvodnje koji se često mora ukalkulirati u cijenu proizvoda kako bi se ostvarila dobit. Proizvodnja u manjim serijama (za tržišnu nišu) također dovodi do većeg stvarnog troška po jedinici proizvoda.

Marketerima ekoloških proizvoda stoga je od velike važnosti razumjeti čimbenike koji utječu na spremnost na plaćanje cjenovne premije za ekološke proizvode. Neki autori ([1], [2], [3], [4]) namjeru kupnje ekoloških proizvoda čak izjednačavaju, odnosno mjere upravo pomoću spremnosti na plaćanje cjenovne premije, jer ističu kako će veza između namjere i stvarnog ekološki usmjerenog ponašanja biti snažnija kada se mjeri namjera koja je čvrsta, odnosno odupire se određenim barijerama, od kojih se upravo viša cijena pokazala kao najsnažnija. Ham i suradnici [5] u svom istraživanju kombiniraju dvije varijable koje predstavljaju komponente namjere kao latentne varijable: spremnost na plaćanje cjenovne premije i predanost odluci o kupnji unatoč prisutnim barijerama.

U Hrvatskoj je upravo kupnja ekoloških prehrambenih proizvoda najrazvijenija i najprihvaćenija kada su u pitanju kupnje ekoloških proizvoda, a također prema istraživanjima (npr. [6]) predstavlja ujedno i najprihvaćeniji oblik ekološki usmjerenog ponašanja. Upravo stoga kupnja ekoloških prehrambenih proizvoda predstavlja primjeren kontekst za ovakvo istraživanje, a kako bi se doprinijelo razvijanju spoznaja i stvaranju baze znanja koja se dalje mogu primijeniti i na druge kategorije proizvoda i druge oblike ekološki usmjerenog ponašanja.

Svrha ovog rada je identificirati čimbenike koji utječu na spremnost potrošača da plate višu cijenu prehrambenog proizvoda u odnosu na konvencionalne proizvode, a koja proizlazi iz ekoloških obilježja proizvoda, odnosno tzv. cjenovnu premiju. Također želi se istražiti smjer i jačina utjecaja tih čimbenika primjenom linearne regresije.

2. CJENOVNA PREMIJA I POTROŠAČI

Istraživanja spremnosti potrošača da plate dodatnu cjenovnu premiju za proizvode koji ne štete okolišu pokazala su velike razlike u percepcijama i očekivanjima potrošača u odnosu na cijenu ekoloških proizvoda. Dok su neki spremni platiti više, drugi drže da bi zeleni proizvodi trebali biti čak jeftiniji (u istraživanju [7] takvih je potrošača 18%) i to najčešće zbog toga što drže da su zeleni proizvodi manje učinkoviti ili da proizvođač ima manji trošak u proizvodnji ako je koristio, primjerice, reciklirani papir za ambalažu ili je smanjio količinu ambalaže te bi ostvarenu uštedu trebao dijelom prebaciti i na kupca.

Cjenovna premija definira se kao razlika između „fer" tržišne cijene i cijene koju kupac plaća, a koja se opravdava stvarnom vrijednošću proizvoda za kupca [8]. U skladu s tim, ekološka cjenovna premija predstavlja razliku cijene koja proizlazi iz ekoloških obilježja proizvoda i/ili proizvođača.

Vezano uz cjenovnu premiju ekoloških proizvoda, marketinški menadžeri suočavaju se u osnovi s dva pitanja:

- Treba li cijena ekološkog proizvoda uključivati cjenovnu premiju?
- Koliku su cjenovnu premiju potrošači spremni platiti za ekološki proizvod?

U nastavku su sažeti čimbenici koje treba razmotriti prije nego se odgovori na ova dva pitanja: [9]

- Priroda proizvoda i razina diferencijacije na tržištu,
- Profil ekološkog pitanja s kojim je proizvod povezan,
- Razina kredibiliteta koju na tržištu uživaju gospodarski subjekt i proizvod,
- Percipirana vrijednost ekološkog proizvoda u odnosu na konvencionalne proizvode,

- Cjenovna osjetljivost potrošača te njihova svjesnost i zanimanje za ekološka pitanja u vezi s proizvodom,
- Postojanje i primjena referentnih cijena u kategoriji proizvoda (tzv. psihološka granica - op.a.).

Svi navedeni čimbenici utječu na (ne)spremnost potrošača na plaćanje više cijene za proizvod koji ima manji negativni učinak na okoliš u odnosu na konvencionalne proizvode. Pri tome postoje čimbenici na koje gospodarski subjekt svojim aktivnostima može utjecati kao što je npr. razina kredibiliteta i percipirana vrijednost zelenih proizvoda, dok se na čimbenike kao što su relevantna ekološka pitanja i cjenovna osjetljivost potrošača, uglavnom ne može djelovati i oni se drže zadanim varijablama. I jedne i druge čimbenike je potrebno kontinuirano pratiti i uzimati u obzir prigodom oblikovanja strategije upravljanja cijenom.

Općenito možemo reći da se nekadašnja odbojnost prema plaćanju cjenovne premije za zelene proizvode vidljivo postupno smanjuje kako potrošači sve više počinju povezivati ekološku odgovornost sa zdravljem i drugim izravnim koristima [10].

Kao jedan od razloga za plaćanje premije, navodi se i želja potrošača da budu sigurni u kvalitetu proizvoda, pri čemu treba razlikovati dvije sastavnice kvalitete: objektivnu i subjektivnu [8]. U prvom slučaju ponajprije je riječ o tehničko-tehnološkim standardima kvalitete, dok je u drugom slučaju riječ o nemjerljivim standardima kvalitete sa stajališta kupca (potrošača) [11]. Možemo reći da je kod ekoloških proizvoda subjektivna sastavnica kvalitete izrazito prisutna.

U izravnoj vezi s kvalitetom i cijenom je i označavanje proizvoda standardnim ekološkim oznakama. Standardne ekološke oznake dodjeljuju se od nepristrane treće strane, te zato imaju visoku razinu kredibiliteta. Ekološke oznake ulijevaju povjerenje potrošačima da se stvarno radi o proizvodu koji je siguran za okoliš, te su zato spremni platiti i višu cijenu za takav proizvod. Često se učinak certifikacije širi i izvan samih ekoloških atributa proizvoda, jer potrošači smatraju da su proizvodi koji posjeduju takav certifikat više izloženi kontroli. Na taj način dodatno se utječe na percipiranu kvalitetu proizvoda, ali i na spremnost na plaćanje više cijene. Vlosky, Ozanne i Fontenot dokazali su u svom istraživanju [8] veze između spremnosti na plaćanje cjenovne premije za ekološke proizvode i percepcija vezanih uz ekološke oznake.

3. METODOLOGIJA ISTRAŽIVANJA

3.1. Uzorak i prikupljanje podataka

Istraživanje je utemeljeno na osobnom ispitivanju provedenom na prigodnom uzorku od 411 ispitanika koji predstavljaju tzv. *primary shopper*-e iz pet Slavonskih županija. Prema [12], *primary shopper*-i se definiraju kao „ljudi koji donose kupovne odluke i određuju što će ostali članovi kućanstva jesti“ te stoga predstavljaju najrelevantniji izvor informacija u tom smislu. U ovom istraživanju, oni su odabrani pomoću filter pitanja pozicioniranog na samom početku upitnika, a koje je glasilo: Jeste li Vi osoba koja obavlja većinu kupovine namirnica za Vaše kućanstvo?

Prikupljeni podaci analizirani su primjenom statističkog paketa SPSS 18.0. Primijenjene su metode univarijatne statistike (distribucija frekvencija, mjere centralne tendencije), multivarijatne analize (mjere pouzdanosti i linearna regresija) te komparativne analize (ANOVA i t-test). Opis uzorka prikazan je u tablici 1.

Tablica 1: Sociodemografske karakteristike uzorka (N=411)

		%
Spol	M	20.7
	F	75.2
Dob (godine)	<30	25.4
	30-39	14.3
	40-49	31.8
	50-59	22.3
	>60	6.2
Obrazovanje	Osnova škola	10
	Srednja škola	56.9
	Fakultet	10.2
	Magisterij	17.5
	Doktorat	3.9
Mjesto stanovanja	Selo	29.2
	Predgrađe	17
	Grad	51.6
Životni standard kućanstva	Ispodprosječan	20.2
	Prosječan	69.6
	Iznadprosječan	9.2
Status zaposlenosti	Student	6.6
	Nezaposlen	24.8
	Zaposlen	56.4
	Umirovljenik	11.7
Veličina kućanstva	1-2	22.7
	3-4	53.5
	>5	23.9
Djece u kućanstvu mlađe od 15 godina	0	70.8
	1	15.8
	2	9.5
	>3	3.9
Prihodi kućanstva (Kn/mjesec)	< 3500	16.1
	3500-7000	31.9
	7001-10000	25.5
	10001-15000	14.4
	15001-20000	6.6
	>20000	5.1

3.2. Mjerni instrument

Kako bi se istražio utjecaj različitih čimbenika na spremnost potrošača na plaćanje cjenovne premije za ekološke prehrambene proizvode korišteno je šest mjernih ljestvica. Prvih pet mjernih ljestvica odnose se na nezavisne varijable i mjere: povjerenje u ekološke proizvode i oznake, stavove prema zdravlju, stavove prema lokalnom i domaćem podrijetlu proizvoda, stavove prema okolišu te percipirano ekološko znanje. Posljednja mjerna ljestvica mjeri spremnost na plaćanje cjenovne premije, kao zavisnu varijablu u ovom istraživanju.

Za potrebe ovog istraživanja preuzeta je mjerna ljestvica za mjerenje povjerenja u ekološke proizvode i oznake iz istraživanja Voona i suradnika [3], te su prilagođene mjerne ljestvice za stavove prema zdravlju i prema okolišu iz istog istraživanja. Za mjerenje percipiranog znanja o ekološkim pitanjima preuzeta je mjerna ljestvica autora Umbersona [13] dok su stavovi prema lokalnom podri-

jetlu proizvoda mjereni ljestvicom iz istraživanja Tannera i Wölfing Kast [12] koja je nadopunjena s tri čestice vezane uz domaće podrijetlo proizvoda koje se ističe kao osobito važno kod hrvatskih potrošača. Ljestvica za mjerenje spremnosti na plaćanje cjenovne premije predstavlja prilagođenu ljestvicu iz istraživanja Voon-a i suradnika [3]. Svaka od mjernih ljestvica sastoji se od niza izjava te Likertove ljestvice od 5 stupnjeva pomoću koje su ispitanici iskazivali svoje slaganje ili neslaganje s ovim izjavama. Prema Mejovšek [14], Likertova ljestvica od 5 stupnjeva osobito je prikladna za prikupljanje podataka u društvima koja primjenjuju obrazovni sustav s ocjena od 1 do 5, obzirom da su pojedinci tada navikli razmišljati i procjenjivati pojave u tom rasponu. Popis korištenih čestica za svaki od konstrukata, izvori te Cronbach alfa kao mjera pouzdanosti, prikazani su u Tablici 2.

Tablica 2: Popis čestica, izvora i mjere pouzdanosti

Varijabla	Čestice	*Izvor*	*Cronbach Alfa*
Povjerenje u ekološke proizvode i oznake	Vjerujem da su oni koji prodaju ekološke prehrambene proizvode iskreni u vezi ekoloških karakteristika svojih proizvoda.	[3]	0,906
	Vjerujem da lokalni proizvođači ekološke hrane zaista primjenjuju načela organskog uzgoja.		
	Vjerujem informacijama na ekološkim oznakama na hrani.		
	Vjerujem ekološkoj etiketi na ekološkoj hrani.		
Stavovi prema zdravlju	Brinem o vrsti i hranjivosti hrane koju svakodnevno konzumiram.	Prilagođeno prema: [3]	0,814
	Zabrinut/a sam zbog prisutnosti aditiva u hrani.		
	Vodim računa o kolesterolu i masnoći.		
	Pazim na prehranu.		
	Važno mi je kako je hrana procesuirana.		
	Zabrinjava me činjenica da je većina hrane kontaminirana pesticidima.		
Stavovi prema lokalnom i domaćem podrijetlu proizvoda	Važno mi je podupirati lokalne farmere kroz svoju kupovinu.	Prilagođeno prema: [12]	0,834
	Dobro je podupirati domaću poljoprivredu kupnjom proizvoda iz regije.		
	Kada je u pitanju hrana, iznimno mi je važno da je proizvedena u Hrvatskoj.		
	Ako postoji domaći u ponudi, uvijek ću ga izabrati prije nego strani proizvod.		
	Kupit ću domaći proizvod, čak i ako je strani proizvod na akciji.		
Stavovi prema okolišu	Država ne čini dovoljno da bi zaštitila okoliš.	Vlastiti konstrukt	0,740
	Vrlo sam zabrinut/a zbog štete koja se čini biljnom i životinjskom svijetu.		
	Zaštita okoliša važan je čimbenik koji uzimam u obzir pri kupnji.		
	Kupnja ekoloških prehrambenih proizvoda mi omogućava da ostvarim pozitivan učinak na očuvanje okoliša.		
	Kupnja ekoloških prehrambenih proizvoda mi omogućava da umirim svoju savjest zbog štete koju činimo za biljni i životinjski svijet.		
	Kupnja ekoloških prehrambenih proizvoda mi omogućava da umirim svoju savjest zbog štete koju činimo budućim generacijama.		

Percipirano ekološko znanje	Molimo Vas procijenite razinu svog znanja o sljedećim pitanjima koristeći ljestvicu u kojoj 1 znači jako slabo, a 5 znači izvrsno…	[13]	0,850
	općenito o ekološkim pitanjima		
	o načinima kako mogu doprinijeti zaštiti okoliša		
	o načinima kako proizvođači ekološke hrane doprinose zaštiti okoliša		
	o utjecaju sastojaka hrane na moje zdravlje		
	o ekološkoj hrani		
	o mjestima gdje mogu pronaći ekološku hranu		
	o ekološkim oznakama		
Spremnost na plaćanje cjenovne premije	Spreman/na sam kupovati ekološku hranu jer koristi premašuju troškove.	Prilagođeno prema: [3]	0,796
	Kupovati ekološke prehrambene proizvode je ispravno čak i kada koštaju više.		
	Kupio/la bih ekološki prehrambeni proizvod čak i ako je obični proizvod na akciji.		

Koeficijenti Cronbach Alfa svih korištenih ljestvica su viši od 0,7 što ukazuje na činjenicu da svi konstrukti imaju prihvatljivu razinu unutarnje konzistencije [15].

3.3. Rezultati istraživanja

Cilj istraživanja bio je identificirati čimbenike koji utječu na spremnost potrošača na plaćanje cjenovne premije za ekološke prehrambene proizvode te smjer i snagu tih utjecaja. U tu svrhu primijenjena je linearna regresijska analiza kako bi se identificirale determinante spremnosti na plaćanje cjenovne premije prema stupnju važnosti. Udio objašnjenosti varijance u regresijskoj analizi izražen u R^2 iznosi 42% kao što je prikazano u tablici 3.

Tablica 3: Sažetak modela

Model	R	R^2	Prilagođeni R^2	Std. pogreška procjene
1	,648[a]	,420	,412	,77811
Prediktori: (konstanta), ekološko_ znanje, povjerenje, lokalno_ podrijetlo, zdravlje, okoliš				

Rezultati ANOVA analize, prikazani u tablici 4, pokazuju da model ostvaruje razinu statističke značajnosti (Sig = 0,000).

Tablica 4: Rezultati ANOVA analize

Model		Suma kvadrata	df	Mean^2	F	Sig.
1	Regresija	164,944	5	32,989	54,486	,000[b]
	Rezidual	227,650	376	,605		
	Total	392,594	381			
a. Zavisna varijabla: Spremnost_na_plaćanje						
b. Prediktori: (konstanta), ekološko_znanje, povjerenje, lokalno_podrijetlo, zdravlje, okoliš						

Rezultati regresijske analize prikazani su u tablici 5. Na temelju ovih rezultata potvrđena je prediktivna snaga svih konstrukata uključenih u model: Ekološko znanje, povjerenje u proizvode i oznake, stavovi o lokalnom i domaćem podrijetlu proizvoda, stavovi prema zdravlju i stavovi prema okolišu.

Tablica 5: Regresijski koeficijenti

Model		Nestandardizirani koeficijenti		Standardizirani koeficijenti	t	Sig.
B		Std. pogreška	Beta			
1	(Konstanta)	-,995	,255		-3,904	,000
	povjerenje	,227	,041	,228	5,475	,000
	zdravlje	,147	,055	,123	2,657	,008
	lokalno_podrijetlo	,232	,052	,205	4,488	,000
	okoliš	,344	,068	,249	5,059	,000
	ekološko_znanje	,228	,057	,168	3,979	,000

a. Zavisna varijabla: Spremnost_na_plaćanje

Cjelokupni regresijski model dobro je funkcionirao u svrhu objašnjenja varijance u čimbenicima utjecaja na spremnost na plaćanje cjenovne premije (F=54,486; d.f. =5; p=0,000). Kao što je prikazano u tablici 5, stavovi prema okolišu imaju najsnažniji pozitivan učinak na spremnost na plaćanje cjenovne premije za ekološku hranu (t=5,059; p=0,000; β= 0,249). Statistički značajan pozitivan utjecaj utvrđen je i kod konstrukata: Povjerenje (t=5,475; p=0,000; β= 0,228), stavovi o lokalnom podrijetlu (t=4,488; p=0,000; β= 0,205), ekološko znanje (t=3,979; p=0,000; β= 0,168) i stavovi o zdravlju (t=2,657; p=0,008; β= 0,123).

4. ZAKLJUČAK

Marketinški stručnjaci današnjice slažu se da globalni fenomen rastuće potražnje za ekološkim proizvodima predstavlja, možda i najveću do sada, priliku za „preslagivanje" snaga na tržištu i zauzimanje boljih konkurentskih pozicija onih sudionika na tržištu koji do sada svojom veličinom odnosno tržišnim udjelom nisu mogli ostvarivati značajnije prednosti na tržištu. Kod potrošača je u sve značajnijem postotku zastupljena visoka razina osviještenosti po pitanju učinaka proizvoda i proizvodnih procesa na okoliš, njihovo zdravlje, lokalno gospodarstvo i sl. Potrošači su također sve svjesniji važnosti i hitnosti njihovog vlastitog doprinosa kao pojedinaca, ali i potencijala i učinkovitosti svoje uloge kao potrošača da svojim odabirom proizvoda usmjeravaju i oblikuju proizvodnu stranu tržišne jednadžbe. Također potrošači su sve više educirani o pitanjima vezanim uz ekologiju, ekološke proizvode i oznake ali i utjecajima raznih čimbenika na vlastito zdravlje i zdravlje obitelji. Može se reći da se povećanjem jaza između onoga što činimo i onoga što znamo da bismo trebali činiti, motivacija za djelovanje pojačava.

Pod utjecajem opisanih promjena, općenito se povećava spremnost potrošača da plate višu cijenu za proizvode koji im omogućuju da ostvare pozitivan doprinos u navedenim područjima. Za marketere je u ovim okolnostima od ključne važnosti razumjeti čimbenike koji utječu na spremnost za plaćanje cjenovne premije kako bi sukladno tome mogli oblikovati učinkovitu marketinšku strategiju.

Istraživanje provedeno za potrebe ovog rada utvrdilo je da najjači pozitivan utjecaj na spremnost za plaćanje cjenovne premije imaju stavovi prema okolišu, a gotovo jednako snažan prediktor je i povjerenje u ekološke proizvode i oznake. Potrošači koji su zabrinuti za stanje okoliša i svoju

ulogu u tome vide važnom, bit će spremni platiti više za proizvode koji pozitivno doprinose tom, njima važnom pitanju, a očekivano je velika važnost i povjerenja u vjerodostojnost ekoloških proizvoda i oznaka. Nadalje potrošači koji drže da je doprinos lokalnom gospodarstvu izuzetno važno pitanje, bit će spremni kupovati te lokalne i domaće proizvode i unatoč višoj cijeni. Nešto slabiji, ali također statistički značaj utjecaj na spremnost za plaćanje cjenovne premije utvrđen je i kod konstrukta percipirano znanje o ekološkim pitanjima te stavovi o zdravlju.

Implikacije ovih rezultata ukazuju na zaključak kako je za marketere ekoloških prehrambenih proizvoda osobito važna edukacija potrošača koja će im omogućiti da razumiju učinke ekoloških prehrambenih proizvoda kako na okoliš, tako i na lokalno gospodarstvo, ali i na njihovo zdravlje. Osobito je pri tome važno obratiti pozornost na vjerodostojnost, provjerljivost i trasparentnost tvrdnji kako bi se izgradilo povjerenje, ali i na osnaživanje potrošača i podizanje razine percipiranog znanja. Potrošači koji imaju visoku razinu povjerenja, ali i samopouzdanja vezano uz vlastito znanje, bit će skloniji svoje stavove, ali i znanje prenositi i na članove svojih referentnih skupina.

Korišteni mjerni instrument koji pokazuje razmjerno dobre pokazatelje valjanosti i pouzdanosti, može poslužiti za daljnja istraživanja s ciljem njegovog testiranja i daljnjeg razvijanja te moguće prilagodbe za druge kategorije proizvoda i/ili drugi kulturološki okvir. Radi povećanja udjela objašnjenosti varijance, moguće je u model uvrstiti i druge čimbenike poput različitih životnih vrijednosti i stilova te primjenom metodologije strukturalnog modeliranja istražiti moguće moderatorske ili medijatorske učinke te učinke kontrolnih varijabli poput primjerice nekih sociodemografskih karakteristika kao što su spol i dob. Također otklanjanjem jednog od osnovnih ograničenja ovog istraživanja koje se odnosi na regionalni uzorak, povećala bi se i mogućnost generalizacije zaključaka modela.

LITERATURA

[1] Gil, J.M., Gracia, A. and Sànchez, M. (2000), "Market segmentation and willingness to pay for organic products in Spain", The International Food and Agribusiness management Review, Vol. 3 No. 2, pp. 207-226.

[2] Krystallis, A. and Chryssohoidis, G. (2005), "Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type", British Food Journal, Vol. 107 No. 5, pp. 320-343.

[3] Voon, J. P., Ngui, K. S., Agrawal, A. (2011): Determinants of Willingness to Purchase Organic Food: An Exploratory Study Using Structural Equation Modeling, International Food and Agribusiness Management Review, Vol. 14, No. 2, pp. 103-120.

[4] Rödiger, M., Plaßmann, S. and Hamm, U. (2016), "Organic consumers' price knowledge, willingness-to-pay and purchase decision", British Food Journal, Vol. 118 No. 11, pp. 2732-2743.

[5] Ham, M., Pap, A., & Stanic, M. (2018). What drives organic food purchasing? – evidence from Croatia. British Food Journal, 120(4), 734-748.

[6] Ham, M. (2012), Ekološka svjesnost potrošača kao čimbenik daljnjeg razvitka marketinga, doktorska disertacija, Osijek: Ekonomski fakultet u Osijeku.

[7] Kapelanis, D. and Strachan, S. (1996) 'The Price Premium of an Environmentally Friendly Product', South African Journal of Business Management, vol. 27, no. 4.

[8] Vlosky, R. P., Ozanne, L. K. and Fontenot, R. J. (1999) A Conceptual Model of US Consumer Willingness-To-Pay for Environmentally Certified Wood Products, Journal of Consumer Marketing, vol. 16, no. 2, pp. 122-136.

[9] Belz, F. M. and Peattie, K. (2009) Sustainability Marketing – A Global Perspective, West Sussex, UK: John Wiley & Sons.
[10] Ottman, Jacquelyn (1998) Green Marketing: Opportunity for Innovation, New York: J. Ottman Consulting Inc.
[11] Meler, M. (2005) Osnove marketinga, Osijek: Ekonomski fakultet u Osijeku.
[12] Tanner, C., Wölfing Kast, S. (2003): Promoting sustainable consumption: Determinants of green purchases by Swiss consumers, Psychology & Marketing, Vol. 20, No. 10, pp. 883-902.
[13] Umberson, K. (2008). Environmentally-friendly purchase intentions: Debunking the misconception behind apathetic consumer attitudes. University of North Texas.
[14] Mejovšek, M. (2003) Uvod u metode znanstvenog istraživanja u društvenim i humanističkim znanostima, Zagreb: Naklada Slap.
[15] Nunnally, J. C. (1978). Psychometric Theory. McGraw-Hill, New York, NY.

THE EFFECTS OF PROCESS INNOVATION'S DIMENSION INTO PRODUCT INNOVATION – A COMPARATIVE FIRM LEVEL ANALYSIS FROM EU AND NON-EU COUNTRIES*

Brunilda Kosta[1]
Nertila Busho[2]

DOI: https://doi.org/10.31410/EMAN.2019.441

Abstract *: This article evaluates the effect of process innovation's dimensions (new production methods, new logistics and distribution, new supporting activities) into the product innovation, considering a comparable pattern between EU and non-EU countries. To examine this cause-effect chain, 516 interviews with innovative firms, randomly selected using stratified random sampling method, are reported. The sample comprised two sub-samples: four EU countries (Italy, Greece, Slovenia, and Croatia) and four non-EU countries (Albania, Bosnia and Herzegovina, Montenegro and Serbia). The logistic regression analysis reveals a positive association between new or significantly improved methods of manufacturing and product innovation and this causativeness effect is stronger among firms in the EU countries. When it comes to the other process innovation dimensions (new logistics and distribution, new supporting activities), the analysis uncovers no significant association for both sub-samples. Analysing the control variables (firm size, export orientation and governmental support), firm size is not significantly associated with the product innovation. However, export orientation has a significant positive effect on firm's inclination to engage in product innovation. Similarly, government financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees, has a significant effect on product innovation.*

Keywords: *product innovation, process innovation, manufacturing methods innovation, logistic innovation, supporting activities innovation.*

1. INTRODUCTION

There is wide research that explains the differences between the product innovation and process innovation (Utterback and Abernathy, 1975; Cohen and Klepper, 1996). Schumpeter (1911) defines product innovation as goods with which ''customers are not familiar'' while process innovation as ''methods of productions that are not yet tested''. Another way of expressing the distinction between these concepts, is provided by OECD manual (2005) which explains that product innovation aims to meet the customer expectations by blueprint new or considerably improved products while process innovation refers to operations and supply chain's upturn. Hence, product innovation helps firms to create a sustainable competitive advantage towards their competitors (Porter, 1985), while process innovation upturns efficiency (Abernathy and Utterback, 1978). Identifying the differences between product and process innovation is of a high importance due to the dissimilar factors impacting their adoption (Tornatzky and Fleischer, 1990). Firms can draw upon product innovation or process innovation. However, due to different organizational structure requirements, firms which focus on a singular innovation typology are better (Bhoovaraghavan et

* This research was co-financed by IPA Adriatic Cross-Border Cooperation 2007-2013 Programme, through PACINNO project (Platform for Trans-Academic Cooperation in Innovation). The authors gratefully acknowledge the financial support from the European Union. We would like to thank all project partners for their contribution.

[1] Faculty of Economics, University of Tirana, ''Arben Broci'' Str, Tirana, Albania.
[2] Faculty of Economics, University of Tirana, ''Arben Broci'' Str, Tirana, Albania.

al., 1996). The decision to conduct a type of innovation instead of both of them is fundamentally important as far as it has performance impact. Empirical research demonstrates that firms which are engaged only in process innovation have a lower performance compared to those who conduct both of them (product and process innovation) at the same time (e.g. Capon et al., 1992).
There are attempts to examine firms' engagement in both product and process innovation acknowledge such a fact (Athey and Schmutzler, 1995), but few research sheds light on the cause-effectiveness relationship that exist between them (e.g. Pisano 1996; Damanpour and Gopalakrishnan, 2001). This paper aims to replenish the scarce empirical evidence about the effect of process' innovation dimensions into the product innovation.

This paper has the following structure. In Section 2 the relevant literature is reviewed. Section 3 describes the data and method used. In section 4 we present the results of the empirical research. Section 5 outlines the key findings and implications.

2. THEORITICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

There are countless classifications of innovation according to the academic and professional literature. Besides giving it same names, its shapes have fundamental differences depending on their meaning and context. This is why there is variety of shades the term innovation means (Boer and During, 2001; Shavinina, 2003; Fagerberg et al., 2005). Several scholars argue that the underline features of innovation comprise change and novelty (Schumpeter, 1911; Porter, 1990; Kotler and de Bes, 2003). Contrary to this approach, other scholars argue that innovation is not meant to represent something entirely new (Tabas, et al., 2010). The founder of the economic theory of innovations, J. A. Schumpeter provides some options while describing innovation as ''producing a new good, introducing a new method of manufacturing which is not applied so far in a specific sector, creating a new market which has not been opened so far in a given sector, catching a new source of supply of primary inputs and developing a new way of industry's organization'' (Schumpeter, 1911). An important contribution on innovation typologies has been given by Oslo Manual designed by a crew of experts with the purpose of measuring and evaluating innovation activities. It defines innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD, 2005, p. 46). According to this manual, innovation typologies include product innovations, process innovations, marketing innovations and organisational innovations. This manual enhances knowledge on the links between different types of innovation.

Innovation itself is complex. The development of this concept has been associated with the evolution of innovation types, too. This historical advancement of innovation is mirrored into the classifications from the "classical" product and process innovation to such "blue ocean innovation" and "frugal innovation. For the purpose of this paper, we refer to the classical typology of innovations which are proposed by OECD methodology. According to this methodology, product innovation refers as ''innovations related to goods and services and the distinctive characteristics include significant improvements in the technical specifications, components and materials'' while process innovation refers as ''implementation of new or significantly improved methods of production or delivery of the product and the distinctive characteristics include significant changes in technology, production equipment and/or software''. These basic definitions, relate product innovation with market needs (Kraft, 1990) and process innovation with operations and supply chain management. Such a distinction is a boon to firms while they decide on

their strategic orientation. If the market stimulates the product differentiation strategy then firm should foster product innovation. If the market stimulates cost leadership strategy, then process innovation is much more appropriate than product innovation.
Several studies underline the importance of clearly defining the differences between product and process innovation due to particular skills their adoption require (Tornatzky and Fleischer, 1990). Although there is a wide literature that elaborates innovations' shapes, this has not been accompanied with the same pace on studies' development to examine the cause-effectiveness relationship between product and process innovation. The first empirical study that has explored the interaction effect between process and product innovation was developed by Kraft (1990) taking a sample of 56 Germany metal working firms. The results indicated that product innovation stimulates process innovation but evidences to see the reverse effect, lacks. However, there are studies that identified the complementarity between product and process innovation, e.g. (Milgrom and Roberts, 1995; Pisano, 1996; Miravete and Pernias, 2006). Process and product innovation can be interweaved (OECD, 2018). Reichstein and Salter (2006) confirm the interdependency between process and product innovation.

We draw on the third edition of Oslo manual (OECD, 2018), to define types of process innovation which include production methods, delivery and logistics methods and supporting activities (e.g. the maintenance of information and communication systems). We take each of the process innovation's dimensions to evaluate whether they foster product innovation.

Some empirical studies have led to the increased knowledge that manufacturing methods innovation is more likely to happen along with product innovation (Gómez, Salazar & Vargas, 2016). So, the following proposition is formulated.

H1. *New or significantly improved methods of manufacturing or producing goods or services are expected to be positively associated with the likelihood for firms to innovate their products.*

Other studies have found that logistics-related integration has an impact on company performance, including product innovation (Flynn et al., 2010; Prajogo and Olhager, 2012). So, the following proposition is formulated.

H2. *New or significantly improved logistics, delivery or distribution methods for inputs, goods or services are expected to be positively associated with the likelihood for firms to innovate their products.*

Some empirical studies tackled the impact of supporting activities onto the product innovation and revealed that new or significantly improved supporting activities are more likely to happen along with product innovation (Gómez, Salazar & Vargas, 2016). So, the following proposition is formulated.

H2. *New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing are expected to be positively associated with the likelihood for firms to innovate their products.*

3. METHOD AND EMPIRICAL MODEL

3.1. Data

To test the hypotheses, a sample of 516 innovative firms randomly selected using stratified random sampling method, was elaborated. The sample has these characteristics: 50% production firms and 50% service companies. In terms of firm's size, 15% are micro, 35% are small and 50% are medium sized. Same features are applied in similar research such as Community Innovation Survey (CIS). Considering the comparative nature of our study the sample has been divided in two subsamples; the first included 265 firms located in four non-EU countries, namely Albania, Bosnia and Herzegovina, Montenegro and Serbia; the second includes 242 firms located in EU countries, namely Italy, Greece, Slovenia and Croatia.

3.2. Measurements

Details of the constructs, measurement and the operationalizations of variables are provided in Appendix A and are discussed below.

Product innovation: Product innovation is measured by a dummy variable, taking 0 value for ‘‘the firm has not been engaged in product innovation during the last three years'', and 1 ‘‘the firm has been engaged in product innovation during the last three years''. Two other options of this variable have been measured also. The first one captures a more market-oriented type of product innovation focusing on innovation that is new to the market the firm is currently operating on. The second is more firm-oriented focusing on copycat type of product innovation that are new to the firm but have been already introduced by firm competitors (OECD, 2005).

Process innovation: Three dimension of process innovation have been used in this study, namely new production methods, new logistics and distribution, new supporting activities (OECD, 2005). The first dimension captures new or significantly improved methods of manufacturing or producing goods or services; the second, new or significantly improved logistics, delivery or distribution methods for inputs, goods or services; the third, new or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing.

We use firm size, export orientation and the support from the government as control variables.

Considering the unreliability of data related to firm's turnover we chose number of employees as a proxy to firm size. We operationalized size as a logarithm of number of employees (Segarra-Ciprés et al., 2014).

Export orientation was measured as firm's current number of active export countries for 2013 (Love et al., 2016).

Support from the government includes financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees during the last three years (Govindaraju et al., 2013).

3.3. Empirical Model

Binary logistic regression model is used to estimate the firm's likelihood to engage in product innovation. This model was selected considering the dichotomous nature of the dependent variable (Peng et al., 2013).

The model has the following form:

$$Ln\left(\frac{P_i}{1-P_i}\right) = a + b_i x_i + ... + c_i z_i + e \qquad (1)$$

Where P_i, is the probability that the firm *i* is engaged in product innovation; $1-P_i$, the probability that the firm *i* does not engage in product innovation; *a*, a constant; x_i, z_i, the independent variables namely, new production methods, new logistics and distribution, new supporting activities; and b_i, c_i, vectors of parameters to be estimated.

The odds ratio will be given by the equation below:

$$\frac{P}{1-P} = e^{a+b_i x_i + c_i z_1} \qquad (2)$$

The odds ratio for the case at hand should be interpreted as follows: one-unit change in the production method increases by e^{b1} the ratio of probability that a firm engages in product innovation to the probability that firm does not.

4. RESULTS

Table 1 summarizes the results of the logistic regression with product innovation as independent variable. Control and independent variables have been included in the analysis in separate blocks. The following interpretation is based on final results of our analyses.

New or significantly improved methods of manufacturing or producing goods or services, as a dimension of the process innovation, are positively and significantly associated with product innovation and this cause-effect chain is stronger among firms in the EU countries. When it comes to the other process innovation dimensions (new logistics and distribution, new supporting activities), the analysis revealed no significant association for both sub-samples. Export orientation has a significant positive effect on firm's inclination to engage in product innovation. Support from government financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees, has a significant effect, albeit at a relaxed level, on product innovation.

Hypothesis 1 is supported for both sub-samples. New or significantly improved methods of manufacturing or producing goods or services are positively and significantly associated with product innovation. The parameter Exp (B) for *Production methods* is 1,837 statistically significant at $p<0.05$ for the non-EU countries subsample (Table 1a). While, *Production methods* is 1,837 statistically significant at $p<0.05$ for the EU countries subsample. These results show that firms that have invested in new production methods are more inclined to develop innovative products.

Hypothesis 2 and 3 are rejected for both subsamples. These hypotheses, positing respectively a positive relationship between new or significantly improved logistics or distribution methods

and product innovation, and new or significantly improved supporting activities for your processes and product innovation, were not supported (table 1a).
Hosmer and *Lemeshow* test assessing the goodness of fit of a model shows p>0.05 ensuring the validity of our model. More than 1/3 of the variance for the EU subsample can be attributed to the independent variables (*Nagelkerke R Square* is 0,347). While, for the non-EU subsample only around 7% of the variance is explained by the model, suggesting that the model is not very useful in predicting product innovation.

Analysing firm size, support from the government and export orientation of the firms as control variables, we conclude, surprisingly, that there is no significant variability in the relationship between predictors and depending variable due to the effect of firm's size; such effect is statistically insignificant. While, as expected, export orientation has a significant positive effect on firm's inclination to engage in product innovation. Support from government financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees, etc. has a significant effect, albeit at a relaxed level, on product innovation.

Table 1a. Results of the logistic regression for the two subsamples

	Dependent variable - Product innovation					
Variables	Non-EU countries			EU countries		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Ln (size)	-.100	.112	.905	0.016	0.125	1.016
Support from government	.138	.503	1.148	1.034†	0.558	2,811
Export orientation	.235*	.112	1.264	0.477***	0.107	1.611
New production methods	.608*	.303	1.837	1.548***	0.325	4.700
New logistics and distribution	.142	.334	1.153	0.058	0.352	1.059
New supporting activities	.206	.325	1.229	0.298	0.349	1.347
Constant	.509	.424	1.664	-1.314	0.421	0.269
Nagelkerke R Square	0.064			0.347		

*$0.01 \le p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$0.05 \le p < 0.1$

These results are supported by the data pertaining to sub-variants of product innovation. Defining product innovation as the introduction of a new or significantly improved product onto the market before competitors our analysis produced similar results (Table 1b). Production method innovation has a positive and significant effect on firm's inclination to engage in the production of products that are new to the market. The only difference concerns the independent variable - new support activities that is significant at a relaxed level for the non-EU countries sub-sample. Nagelkerke R Square statistics show a slightly better predictability of the model for the non-EU subsample compared to the previous one.

Table 1b. Results of the logistic regression for the two subsamples

	Dependent variable - Product innovation (new to the market)					
Variables	Non-EU countries			EU countries		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Ln (size)	-.013	.101	.987	0.014	0.113	.986
Support from government	.235	.448	1.265	.847†	0.443	2,332
Export orientation	.187*	.090	1.206	0.252***	0.070	1.286
New production methods	.637*	.280	1.891	1.486***	0.310	4.419
New logistics and distribution	.036	.303	1.036	0.156	0.313	1.169
New supporting activities	.563†	.296	1.756	0.077	0.330	1.080
Constant	-.549	.397	.578	-1.584	0.397	0.205
Nagelkerke R Square	0.089			0.250		

*0.01 ≤ p < 0.05, **p < 0.01, ***p < 0.001, †0.05 ≤ p < 0.1

Similarly, we run a third analysis using another definition of product innovation a new or significantly improved product that was already available from your competitors in your market but new to the firm. The results are similar (Table 1c). Nagelkerke R Square statistics show an even better predictability of the model for the non-EU subsample compared to the two previous ones.

Table 1c. Results of the logistic regression for the two subsamples

	Dependent variable - Product innovation (new to the firm)					
Variables	Non-EU countries			EU countries		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Ln (size)	.070	.114	1.073	0.077	0.117	1.080
Support from government	.294	.548	1.342	.949*	0.473	2.584
Export orientation	.312**	.117	1.366	0.306***	0.077	1.358
New production methods	.862**	.306	1.367	1.362***	0.315	3.906
New logistics and distribution	.294	.352	1.342	-0.172	0.325	.842
New supporting activities	-.298	.343	.752	0.410	0.335	1.507
Constant	-.383	.443	.682	-1.712	0.409	0.180
Nagelkerke R Square	0.127			0.277		

*0.01 ≤ p < 0.05, **p < 0.01, ***p < 0.001, †0.05 ≤ p < 0.1

Our data that new production methods are a good predictor of product innovation; that is investing in new manufacturing methods, technology and processes needed to deliver services which leads to the development of new products and services. However, this cause-effect chain is stronger among firms in the EU countries. While our analysis seems to suggest, yet not convincingly, that a similar pattern can be observed in on-EU countries. Other factor not accounted in this analysis need to be investigated.

5. CONCLUSIONS

This paper endeavors to institute the relationship between dimensions of process innovation and product innovation. Particularly, we explore the cause-effectiveness chain between process innovations' dimensions (new methods of manufacturing, new logistics and distribution, new supporting activities) and product innovation. We use data gathered from 516 innovative firms to empirically test this cause-effect chain. Additionally, we include, firm size, government support and export orientation as the main controls. As key results, first it can be highlighted that new or significantly improved methods of manufacturing or producing goods or services are positively and significantly associated with product innovation and this cause-effect chain is stronger among firms in the EU countries compared with firms in non-EU countries. It appears that new technologies, manufacturing methods lead to product innovation and eventually to better performance and competitiveness. Innovation in logistics and supporting activities has not a significant effect on product innovation. The effect of firm's size is statistically insignificant. Export orientation has a significant positive effect on firm's inclination to engage in product innovation. More than 1/3 of the variance for the EU subsample can be attributed to the independent variables (*Nagelkerke R Square* is 0,347). While, for the non-EU subsample a rather smaller variance is explained by the model, suggesting that the model is not very useful in predicting product innovation. In terms of future research, it would be of a high interest to explore on the factors that lead to product innovation for non-EU countries (developing countries). Another idea to get studied is to see if market and industry factors have a stronger effect in terms of magnitude on product innovation.

APPENDIX A. DETAILS OF CONSTRUCTS AND MEASURES

Variable		Number of items	Measurement
Dependent variable			
Product innovation (three versions of the dependent variable - innovation in general, product innovation that is new to the market, and new to the firm)		1	*Dummy*, 1= product innovation 0= no product innovation
Independent variable			
New production methods	New or significantly improved methods of manufacturing or producing goods or services	1	*Dummy*, 1= new production methods in the last three years, 0 = no new production methods in the last three years
New logistics and distribution	New or significantly improved logistics, delivery or distribution methods for inputs, goods or services	1	*Dummy*, 1= new logistics and distribution in the last three years, 0 = no new logistics and distribution in the last three years
New supporting activities	New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing	1	*Dummy*, 1 = new supporting activities in the last three years, 0 = no new supporting activities in the last three years
Control variables			
Firm size	Number of employees	1	Logarithm of number of employees
Support from the government	Financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees	1	*Dummy*, 1= support from the government, 0 = no support from the government
Export orientation	Number of countries firm exports	1	Continues

REFERENCES

[1] Abernathy, W. J., & Utterback, J. M. (1978). Patterns of industrial innovation. *Technology review*, *80*(7), 40-47.

[2] Athey, S., & Schmutzler, A. (1995). Product and process flexibility in an innovative environment. *The RAND Journal of Economics*, 557-574.

[3] Bhoovaraghavan, S., Vasudevan, A., & Chandran, R. (1996). Resolving the process vs. product innovation dilemma: A consumer choice theoretic approach. *Management Science*, *42*(2), 232-246.

[4] Boer, H., & During, W. E. (2001). Innovation, what innovation? A comparison between product, process and organizational innovation. *International Journal of Technology Management*, *22*(1-3), 83-107.

[5] Capon, N., Farley, J. U., Lehmann, D. R., & Hulbert, J. M. (1992). Profiles of product innovators among large US manufacturers. *Management Science*, *38*(2), 157-169.

[6] Chandran Govindaraju, V. G. R., Krishnan Vijayaraghavan, G., & Pandiyan, V. (2013). Product and process innovation in Malaysian manufacturing: The role of government, organizational innovation and exports. *Innovation*, *15*(1), 52-68.

[7] Cohen, W. M., & Klepper, S. (1996). Firm size and the nature of innovation within industries: the case of process and product R&D. *Review of Economics and Statistics*, *78*(2), 232-243.

[8] Damanpour, F., & Gopalakrishnan, S. (2001). The dynamics of the adoption of product and process innovations in organizations. *Journal of management studies*, *38*(1), 45-65.

[9] Fagerberg, J., Mowery, D. C., & Nelson, R. R. (Eds.). (2005). *The Oxford handbook of innovation*. Oxford university press.

[10] Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of operations management*, *28*(1), 58-71.

[11] Gómez, J., Salazar, I., & Vargas, P. (2016). Sources of information as determinants of product and process innovation. *PloS one*, *11*(4), e0152743.

[12] Kotler, P., & De Bes, F. T. (2003). *Lateral marketing: New techniques for finding breakthrough ideas*. John Wiley & Sons.

[13] Kraft, K. (1990). Are product and process innovations independent of each other?. *Applied Economics*, *22*(8), 1029-1038.

[14] Love, J. H., Roper, S., & Zhou, Y. (2016). Experience, age and exporting performance in UK SMEs. *International Business Review*, *25*(4), 806-819.

[15] Milgrom, P., & Roberts, J. (1995). Complementarities and fit strategy, structure, and organizational change in manufacturing. *Journal of accounting and economics*, *19*(2-3), 179-208.

[16] Miravete, E. J., & Pernias, J. C. (2006). Innovation complementarity and scale of production. *The Journal of Industrial Economics*, *54*(1), 1-29.

[17] Peng, C. Y. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *The journal of educational research*, *96*(1), 3-14.

[18] Pisano, G. P. (1997). *The development factory: unlocking the potential of process innovation*. Harvard Business Press.

[19] Porter, M. E. (1990). *The competitive advantage of nations: with a new introduction*. Free Pr.

[20] Porter, M. E., & Advantage, C. (1985). Creating and sustaining superior performance. *Competitive advantage*, *167.*

[21] Prajogo, D., & Olhager, J. (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics*, *135*(1), 514-522.

[22] Reichstein, T., & Salter, A. (2006). Investigating the sources of process innovation among UK manufacturing firms. *Industrial and Corporate change*, *15*(4), 653-682.
[23] Schumpeter, J. (1911). The theory of economic development. Harvard Economic Studies. Vol. XLVI.
[24] Segarra-Ciprés, M., Roca-Puig, V., & Bou-Llusar, J. C. (2014). External knowledge acquisition and innovation output: an analysis of the moderating effect of internal knowledge transfer. *Knowledge Management Research & Practice*, *12*(2), 203-214.
[25] Shavinina, L. V. (Ed.). (2003). *The international handbook on innovation*. Elsevier.
[26] Statistical Office of the European Communities. (2005). *Oslo manual: Guidelines for collecting and interpreting innovation data* (No. 4). Publications de l'OCDE.
[27] Tabas, J., Polák, J., & Beranová, M. (2014). Evaluation of approaches to definition of innovations. *Acta Universitatis agriculturae et silviculturae Mendelianae Brunensis*, *58*(6), 563-570.
[28] Tornatzky, L. G., Fleischer, M., & Chakrabarti, A. K. (1990). *Processes of technological innovation*. Lexington books.
[29] Utterback, J. M., & Abernathy, W. J. (1975). A dynamic model of process and product innovation. *Omega*, *3*(6), 639-656.

THE CROPS SUPPLY'S PROSPECTS IN MONGOLIA: PRODUCTION, IMPORT AND POLICY IMPLICATIONS

Amar Uuld[1]
Robert Magda[2]

DOI: https://doi.org/10.31410/EMAN.2019.451

Abstract: *Crop production has been always main important sector but relatively small part of the Mongolian economy. As of 2017, agricultural sector produced approximately 11 percent of total GDP, which of agricultural production is more than 80 percent of livestock sector and less than 20 percent of crop production (NSO, 2017). Mongolia has a vast area of territory (18th-largest country in the world). However, of the 80% of the land covered with grassland and pastureland, crops have never been produced on less than 1% of the total land area of Mongolia (FAO, 2014). This study reviews Mongolia's crop production' current situation, focusing on Mongolia's crops supply level, self-sufficient rate and government policy in the future. The results show that Mongolia' policies for ensuring food supply level will be increased and Mongolia will pay attention to more domestic production. Mongolia's crops self-sufficiency rate is 80 percent of flour and flour products, 107.7 percent of potato, 33.2 percent of vegetables and 0.7 percent of fruits and berries. By 2020, flour and flour products self-sufficiency rate are likely to increase to 100 percent, vegetables to 79 percent and fruits to 7.8 percent with associated government policy. However, fruits are still reliance on import.*

Keywords: *Crop production, import, food supply level, self-sufficient rate, government policy.*

1. INTRODUCTION

Crop production is very important sector in Mongolia for food supply and food sufficiency. Until 1960, agriculture products (especially, meat and dairy products) dominated in diet of Mongolians. By implementing the first "ATAR-1" campaign in 1959, the diet of Mongolians was started to provide by crop production. A result of campaign, at the peak of crop production was harvested from 700 000 ha in between 1980 and 1990. Unfortunately, the country has adopted a free-market economy in 1990. Consequence of transition, crop production has failed, as well as population's food consumption has provided by import products (especially crop products). Mongolia has small population (3.2 million in 2017), that needs approximately 300.0 thous.tn wheat, 200.0 thous.tn meat and meat products, 180.0 thous.tn dairy products, 130.0 thous.tn potato, 180.0 thous.tn vegetables and 170.0 thous.tn fruits a year. Domestic production supplies 100% of meat and meat products, 100% of wheat and potato demand, 53% of vegetable demand and 0.7% of fruits and berries demand, respectively (NSO, 2017).

Nowadays, food security, food safety and sufficiency are considered as very important concept; as well, the consumption of consumer goods has been increasing. Therefore, we need to pay attention to the increase of food production that meets the food hygiene standard, its production increase and full supply of domestic consumption.

The main goal of this paper is to analyze Mongolia's crop market, crop's supply level and self-sufficient level. Also, to review government policy, policy implications in the future.

1 Ph.d student at Szent Istvan University, Godollo, Hungary
2 Szent Istvan University, Godollo, Hungary

The remainder of this paper is organized as follows: Section 2 summarizes current situation market for Mongolian crop production; Section 3 shows by Mongolian crop product's supply and demand projections, section 4 presents recent government policies and their results about the implementation of government policy for the future, and last section shows conclusions.

2. CURRENT SITUATION OF MONGOLIAN CROP PRODUCTION

2.1. Domestic production

The total sown area in Mongolia is 524.3 thousand ha in 2017, that is decreased by 33.4 percentage ha in the 1990 year (Fig 1). From the grain area share approximately 75 percent was wheat production, 2.9 percent potato, 1.6 percent vegetables, 0.5 percent fruits and other 20 percent fodder and industrial crops. Potato, vegetables and fruits sown area was highest in 2005.

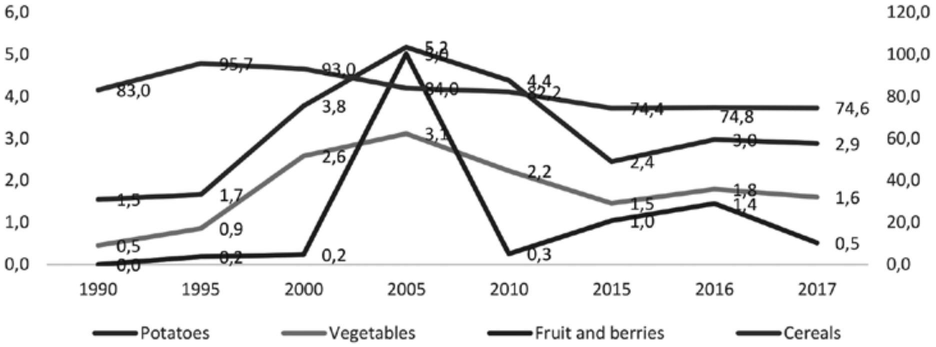


Figure 1. Share of sown area by type of crops, between 1990-2017.
Source: Mongolian statistical yearbook, 2017.

The collapse of production since 1990 has been accompanied by dramatic decreases in both the amount of land harvested and efficiency (Santiago, Bianca Marques, 2003). Overall, all crops sown area was increased until 2005, after that it fell gradually to about 0.3 percent for fruits, 2.2 percent for vegetables, 4.4 percent for potato and 82.2 percent for cereals in 2010.

Table 1 shows the crop domestic production between 1990-2017, some crop production of 2017 compared to 1990; cereals was almost 3 times decreased, or vice versa, vegetables were twofold increase.

Table 1. Total harvest, by type of crops, between 1990-2017.

	1990	1995	2000	2005	2010	2015	2016	2017
Cereals	718.3	261.4	142.1	75.5	355.1	216.3	483.5	238.1
Potatoes	131.1	52.0	58.9	82.8	168.0	163.8	165.3	121.8
Vegetables	41.7	27.3	44.0	64.2	82.3	72.3	94.4	82.1
Fruits and berries	-	-	-	-	0.6	1.4	1.6	1.5

Source: Mongolian statistical yearbook, 2017.

Consecutive severe drought in 2005, 2007, 2010, 2013 and 2015 lowered wheat production severely. Production rebounded in 2016, reaching 480 000 tones, but remained below the national requirement (Coslet, Cristina Palmeri, Fabio, Sukhbaatar, Jigjidpurev, Batjargal, Erdenebaatar, Wadhwa, Amit, 2017).

2.2. Import situation

We started to provide of food consumption by import products from 1995 associated with transition. Until the middle of the 1990s Mongolia was self-sufficient in wheat and an occasional exporter. As of 2017, total crop product's import was 155612.6 thousand dollars of which constitutes 40.5% flour and flour products, 31.7% of vegetables, 17.6% of cereals and 10.3% of fruit and berries. Table 2 shows the quantity of crop's import between 1995-2017.

Table 2. Total Import, by type of crops, between 1995-2017, by thous.tn

	1995	2000	2005	2010	2015	2016	2017
Wheat	-	92.2	97.5	66.2	21.1	158.4	13.7
Wheat flour	32.8	99.8	103.9	65.2	20.5	30.01	1.3
Rice	8.3	13.6	13.8	25.9	24.5	26.6	38.4
Potato	2.9	13.1	40.9	8.5	17.1	0.6	0.5
Vegetables	-	3.9	18.7	57.19	50.3	55.06	74.7
Fruits	-	11.3	22.5	15.3	28.5	33.5	22.4

Source: Mongolian customs statistical yearbook, 2017.

Last a few years, some crop import has been decreasing with associated government policy. For example, wheat, wheat flour and potato. But, quantity of import creates when the local production is reduced due to weather condition.

3. MONGOLIAN CROPS SUPPLY AND DEMAND PROJECTIONS

Markets in Mongolia have a particular importance for access to food since the majority of the population lives in urban areas and inhabitants are net-buyers of food. In rural areas, herders are generally self-sufficient in meat and dairy products, but need to purchase all other food products, in particular wheat flour, a key food staple (Coslet, Cristina Palmeri, Fabio, Sukhbaatar, Jigjidpurev, Batjargal, Erdenebaatar, Wadhwa, Amit, 2017). Mongolian people used to eat meat more than vegetables, which is essential part of Mongolian nomadic life style. However, last decades' citizenry's meal has been changing associated with urbanization and civilization. Also, citizenry became more used to have a balanced, nutrition and vitamin diet for better health.

According to statement of Minister of Health and Social protection (former name), a standard population's optimal consumption was identified by Nutrition research center in 1997. A year optimal consumption was identified: meat and meat products 63.9 kg, milk and milk products 63.9 kg, floor 36.5 kg, rice 28.5 kg, potato 51.1 kg, vegetable 73 kg, sunflower oil 9.1 kg and eggs 6.9 kg (NSO, 2017).

Also, a standard population's food supply 13 commodity groups[3] identified by National statistical organization, Ministry of Agriculture and food associated with Mongolian government announced "Food security year" of 2008. Since 2008, Mongolian National Statistical organization has been calculating Mongolian national food security indicators. Table 3 shows the selected crops consumption, import, supply level and self-sufficient rate in 2017.

[3] - There are including below commodity - meat and meat products, dairy products, flour and flour products, rice, potato, vegetables, fruits and berries, eggs, sugar and sweeteners, pulses and vegetable oil.

Table 3. Domestic production, import, supply level and self-sufficient rate, by thous.tn, 2017.

Type of products	Consumption	Domestic production	Import	Supply level (%)	Self-sufficient rate (SSR, %)
Flour and flour products	262.6	208.9	21.4	87.7	79.6
Rice	46.9	0	36.9	78.7	0
Potatoes	112.5	121.2	0.4	108.1	107.7
Vegetables	243.8	80.9	77.2	64.8	33.2
Fruit and berries	187.6	1.4	40.9	22.5	0.7

Source: Indicators for food security statistics, 2017.

Self-sufficient rate shows the how much a country can satisfy its food needs from its own domestic production. Mongolia's food self-sufficiency rate remained: for the flour products was 80 %, potato was 107.7%, vegetables was 33.2 % and fruits was 0.7 % in 2017 (table 3). Vegetables and fruit's self-sufficient rates were below level compared to flour and potato, due to small sown area. About the rice, Mongolia does not plant it, which is associated with extremely condition.

Table 4 shows the self - sufficient rate projections for 2020. We tried to calculate some crop's projections based on population's projections. Mongolian National Statistical office calculated estimation of population projections in 2017.

According to, book of "Renewed 2015-2045 population projection", Mongolian total population will be 3.3 million by 2020 (NSO, 2017). We calculated crop's food consumption and self-sufficient rate based on a standard population's optimal consumption identified by Nutrition research center in 1997. Therefore, quantity of domestic production calculated based on Mongolian food and agriculture policy and main target.

Table 4. Self-sufficient rate projections for 2020.

Type of products	Consumption, thous.tn	Self-sufficient rate %
Flour	96.7	100
Flour products	174.1	75
Rice	48.5	0
Potato	116.1	150.7
Vegetables	251.5	78.7
Fruit and berries	193.4	7.8

Source: Own calculation

By 2020, we need to require consumption of 270.8 thous.tn for flour and flour products, 48.5 thous.tn for rice, 116.1 thous.tn potato, 251.5 thous.tn vegetables and 193.4 thous.tn fruits and berries. Also, self-sufficient rate will be increased, for example, vegetables rate will be increased 78.7 % and fruits rate will be increased 7.8 %.

4. POLICY IMPLICATIONS AND GOVERNMENT POLICY FOR CROP PRODUCTION SECTOR IN THE FUTURE

Crop production has always been an important but relatively small part of the Mongolian economy. The one of the most important policy was "Atar" campaign in crop production. Throughout the Mongolian agricultural history, the "Atar campaign" was organized twice, in 1959 and again in 1976 to increase the food support. Also, the Mongolian government has implemented the Atar -3 land rehabilitation campaign between 2008 and 2010 (Ministry of food and agriculture, 2009). According to this project, government is planning many effective programs, such as increase of the usage of agricultural land, enhance irrigation, improve seed quality, fertilize soil, prepare more fallow land, develop agricultural machinery, train more professionals etc. Table 5 shows brief of the Government policy for crop production.

Table 5. Government policy related to crop development in Mongolia.

Government policy	Year	Main objective, targets and results*
"Atar -3" campaign	2009-2012, 2016-2020	The overall objective of the campaign is to intensify development of the arable land of Mongolia, by creating legally and economically favorable conditions for engaging in farming and steadily supplying the population with safe products (thus eliminating dependence on imports). The program started from 2008, the program appears to focus on land that has previously been in crop production with the goal of returning to levels seen during the 1980s. As a result of this program, total sown area has beenincreasing to 524.3 thousand hectares in 2017. Approximately 75 percent of all sown area are wheat production, while the remainder are potato, vegetables and fodder crops. Main targets and main activities for 2020: • Wheat production will be achieved to 680.0 thous.tn by 2020. • Wheat, potato, vegetable's domestic production will supply 100 % of domestic consumption. • Yields per hectare will be increased by 30 percent. • Main activities and implications: • Legal environment reform • Technological innovation • Seed innovation • Optimal switch • Pesticide protection for herb • Price regulation
"Food security" national program	2009-2016	The overall goal of the Program is to ensure sustainable supply of nutritious, secure and accessible food, which enables healthy livelihood and high labor productivity of the population, involving participation of the citizens, government, public and private sectors. Main results: • National food security indicators were calculated by NSO. • Some laws signed by Mongolian parliament for food safety and food security

Vegetables" national program	2018-2022	The purpose of the program is to support the development of vegetable production by promoting the production of vegetable growers and vegetable growers, and to sustain the domestic demand throughout the year. Main targets and main activities: • Vegetable sown area will achieve to 198 thous.tn harvest • Storage and sales • Processing factories • Irrigation system • Technical supply • Seed reform • Pesticide protection for herb
Fruits" national program	From 2017	The purpose of the program is to increase the diversity of fruits and berries, to produce seagrass cultivation of 10 thousand hectares and other varieties of fruits and berries to 2 thousand hectares of land, to provide sustainable population and eco-friendly fruits, to reduce import and improve competitiveness in income generation. Main targets and main activities: • To establish supply chain for fruit and sea buckthorn • To increase sown area for fruit (target level 8000 ha and 15.0 thous.tn) • To increase export's income for fruit (for example, sea buckthorn oil) • Technical supply • Greenhouse • Storage and sales • Pesticide protection for herb

Source: www.mofa.gov.mn, *- brief information

5. CONCLUSION

The main goal of this study was analyzing current situation of crop market, crop's supply level and self-sufficient level. Also, this study reviewed government policy, policy implications in the future. Since 2008, National Statistical organization have estimated food supply indicators associated with national security concept. Nowadays, domestic production supplies 100% of potato demand, 33.2% of vegetable demand and 0.7% of fruits demand, respectively as well as self-sufficient rate. Mongolian government has been implementing many project and program for crop production. Also, national program for especially product (for example, vegetables and fruits) will be implementing in the future. By 2020, as a result of Mongolian government paying attention to this situation, self-sufficient rate is likely to increase to 100 percent, vegetables to 79 percent and fruits to 7.8 percent with associated government policy.

REFERENCES

[1] "NTC International" LLC, "Almec VPI" LLC and "IC net" LC, 2017. *Basic survey of Mongolian agricultural sector,* Ulaanbaatar: Jika organization.

[2] Coslet, Cristina Palmeri, Fabio, Sukhbaatar, Jigjidpurev, Batjargal, Erdenebaatar, Wadhwa, Amit, 2017. *Special report FAO/WFP crop and livestock assessment mission to Mongolia,* Rome, Italy: FAO.

[3] Galsanbuyan, 2008. *Current situation of Mongolia's food and agriculture sector and some priority issues of the development,* Ulaanbaatar: s.n.

[4] HUANG Ji-Kun, WEI Wei, CUI Qi, XIE Wei, 2017. The prospects for China's food security and imports: Will China starve the world via imports? *Journal of Integrative Agriculture,* 16(12), pp. 2933-2944.

[5] Jae-Hwan Park, Jee-Yeon Choi, Tae-Hyung Kim, and Steve Evans, 2016. Food Security in Mongolia: A System Innovation Perspective. *Public Health,* pp. 258-279.

[6] Japan Fund for Poverty Reduction Project Administration, 2017. *Mongolia: Community Vegetable Farming for Livelihood Improvement (Financed by the Japan Fund for Poverty Reduction),* Ulaanbaatar: s.n.

[7] Ministry of food and agriculture, 2016. *Government policy for Agriculture and food sector.* Ulaanbaatar: s.n.

[8] Ministry of food and agriculture, 2009. *„Atar-3" national program,* Ulaanbaatar: s.n.

[9] Ministry of food and agriculture, 2017. *„Fruits" national program.* Ulaanbaatar: s.n.

[10] Ministry of food and agriculture, 2017. *„Vegetable" national program.* Ulaanbaatar: s.n.

[11] Mongolian parliament, 2012. *Law of food.* Ulaanbaatar: s.n.

[12] NSO, 2017. *Indicators for food security statistics-2017,* Ulaanbaatar: s.n.

[13] NSO, 2017. *Mongolian statistical yearbook.* Ulaanbaatar: s.n.

[14] NSO, 2017. *Renewed 2015-2045 population projection.* Ulaanbaatar: NSO.

[15] Santiago, Bianca Marques, 2003. *The Potential for Intensive Crop Production in the Eastern Steppe of Mongolia: History, Current Status, Government Plans, and Potential Impacts on Biodiversity,* Ulaanbaatar: s.n.

REACHED LEVEL OF FINANCIAL INCLUSION IN SELECTED EUROPEAN COUNTRIES

Milka Grbić[1]
Milena Jovanović-Kranjec[2]
Natalija Jovanović[3]

DOI: https://doi.org/10.31410/EMAN.2019.459

Abstract: *Generally accepted viewpoint is that for the realization of economic growth and decrease of poverty, among other things, the inclusion of individuals in the formal financial flows is necessary. The concept of financial inclusion, as the subject of paper research, is being considered at the example of the selected European countries out of which some have successfully finished transition process and have become the members of European Union (advanced countries in transition), while a number of them is on the road of European integrations (the countries of Western Balkans). In accordance with the subject, the objective of the paper is to carry out comparative analysis of the reached level of financial inclusion of individuals in advanced countries and the countries of Western Balkans. Paying respect to the complexity of the stated problem, the qualitative methodology is applied, based on the dominant application of the methods of analytical description and methods of comparative analysis. In the paper it is concluded that the average values of selected indicators of financial inclusion of the individuals in the case of Western Balkans countries are significantly lower in comparison to the advanced countries in transition. In the context of the measures of economic policy and the elements of development strategies it is necessary to provide the conditions for the increase of financial inclusion, primarily in the countries of Western Balkans. Regarding this, what is necessary, among other things, is financial education for the purpose of improvement of financial literacy of population, implementation of new technologies of mobile banking and electronic payment, designing of financial products that meet the needs of clients and provision of financial services at prices that individuals can afford.*

Keywords: *financial inclusion, advanced countries in transition, countries of Western Balkans*

1 INTRODUCTION

One of the global subjects that, in contemporary conditions, is in the focus of decision makers, the creators of social policies and researchers across the world, is financial inclusion. In developed countries the strategies of financial inclusion are focused on the most vulnerable in order to make the percentage of inclusion near 100%, while in developing countries they are focused not only on the inclusion in financial system of as many citizens as possible, but on the availability of the most various financial services as well. As the result of bigger and bigger knowledge on its significance, financial inclusion was the subject of the Report of World Bank on global financial development for the year 2014.

The purpose of this paper is to carry out comparative analysis of the reached level of financial inclusion of individuals in the chosen European countries. For the needs of comparative analysis, the group of sixteen countries was singled out from the areas of Southeast Europe, Central Europe and Baltic. The chosen countries can be divided to advanced countries in transition, the

1 Faculty of Economics University of Kragujevac, Liceja Kneževine Srbije 3, Serbia
2 Faculty of Economics University of Kragujevac, Liceja Kneževine Srbije 3, Serbia
3 Faculty of Philosophy University of Niš, Ćirila i Metodija 2, Serbia

members of European Union and the countries in transition that are the potential candidates for the admittance to the European Union. The structure of advanced countries in transition is made of: Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia, Slovenia, Croatia and Czech Republic, while the structure of the second group is made of: Albania, Bosnia and Herzegovina (BIH), Macedonia, Serbia and Montenegro, that at the same time represent the group of the countries of Western Balkans.

2. CONCEPTUAL FRAMEWORK OF FINANCIAL INCLUSION

The use of financial services represents an important segment of everyday life of a man in contemporary world. Sarma (2008) defines financial inclusion as the process that ensures an easy access, availability and the use of services of formal financial system for all economy members. Financial inclusion in most general way is defined as the percentage of individuals that use financial services (World Bank, 2014). According to Ben Naceur et al., (2015) this definition enables the measurement of financial inclusion on comparative basis in all countries.

In the consideration of financial services that are considered essential, World Bank (2012) marked four main types of services that individuals need to have access to, and these are: bank transactions, savings, credits and insurance. Main institutions that offer these services are banks, although some of these services are offered by posts, saving banks and insurance companies as well. The first step to financial inclusion is opening of bank account, while next steps are taking credits, keeping savings or purchase of insurance.

The accessibility of financial services has getting more in significance in the past years, setting the essential part of development strategy. One of the reasons is that contemporary theory of development sees the lack of accessibility to finances as the key mechanism for generating constant inequality of incomes, as well as slower economic growth. Another reason is the note that small companies and poor households worldwide are faced with bigger obstacles when it comes to the possibility to access finances, especially in developing countries.

3. LIMITING FACTORS AND CATALYSTS OF FINANCIAL INCLUSION

There are many different reasons due to which the poor do not have the accessibility to finances – credits, savings accounts, insurance services. Social and physical distance from formal financial system can have the significance. The poor may not have anyone in their financial surrounding that knows what different services are at disposal. The lack of education can make it difficult for them to overcome problems of filling up credit request, and small number of transactions that they can probably undertake can influence their credit officer to think that they are not worth of help. Since financial institutions are probably in richer neighborhoods, physical distance can be significant. More precisely, when it comes to the accessibility of credit services, there are two important problems. Firstly, the poor do not have collateral and cannot be indebted on the basis of their future income since in most cases they do not have constant employment or income flows that can be monitored. Secondly, the business with small transactions is expensive for financial institutions. Ceiling rates that financial institutions can calculate even more reject and limit the accessibility for the poor.

One of the basic preconditions of financial inclusion is financial literacy. Financial literacy of individuals implies the possession of knowledge and skills necessary for efficient management of money and use of financial services. In that sense, financial education has for its purpose the improvement of financial literacy on both personal level and the level of financial sector and society in total, and accordingly the increase of the degree of financial inclusion. From the point of view of individual, the aim is raising awareness on the significance of timely management of personal finances, as well as gaining understanding of the characteristics of financial products and skills on the comparison, for the purpose of making financially responsible and sustainable decisions of individuals (Sredojević, 2016).

The last two decades are marked with the fast growth of new technologies, such as mobile payments, internet banking and technology of biometric identification. The mentioned technology innovations enabled significant decrease of both transaction costs and geographic barriers in the use of financial services.

Wider use of financial services can, also, be stimulated by innovative product design for the purpose of overcoming market imperfections and satisfying customer needs. One of the examples of such product design are mandatory saving account or the account with limited money withdrawal on which an individual deposits certain money amount and denies the access to cash for certain time period (Beshears et al., 2015). Primarily, such accounts represent the mean of promotion of savings. At the same time, they enable overcoming the problems of self-control regarding money spending and absorb the pressure in case of unfavorable events.

Another example of innovative product design is the insurance based on time indexes (Bokusheva & Breustedt, 2012). Unlike traditional insurance, the insurance based on time indexes refers to the certain meteorological parameters. In this case, the reimbursement is done if certain limit value (e.g. the quantity of precipitation or average temperature) is transferred or not reached. Index insurance decreases the problem of moral hazard, since the reimbursement is done according to the measurable index that is out of control of insured. The benefits of such insurance are precise and as such it represents the increase factor of both financial inclusion and agriculture production.

4. COMPARATIVE ANALYSIS OF FINANCIAL INCLUSION

For the purpose of perceiving the reached level of financial inclusion for the chosen countries sample, the comparative analysis of some of the most important indicators of the use of financial services by individuals has been carried out. The indicators have been taken over from the data base on global financial inclusion (Global Findex) and they refer to the year 2017.

Global Findex is the part of the data base on global financial development and represents first publicly published set of indicators that measure the possibilities of access to financial products and services by individuals worldwide. The collection of data is done through a survey that is based on detailed conversations with at least 1.000 people, in about 150 economies, on their financial behavior. The sets of data collected in this way can be used for the monitoring of influence of the policies of global financial inclusion and enable deeper understanding of how people across the world save, borrow and pay.

As the main indicator that reflects the degree of financial inclusion the number of bank accounts on 1.000 grown up persons is used (Čihák et al., 2012). Other indicators in this category include:

the possession of accounts according to groups (old, young, highly educated, lower educated), the number of branches of commercial banks and the number of ATMs on 100.000 grown up persons, as well as the number of those who use debit cards. In the analysis are, as afore mentioned, included European transition economies. The comparison of chosen indicators has also been carried out in relation to Eurozone and world in whole.

When we comparatively observe the percentage of citizens older than 15 that have opened an account (Image 1), among advanced countries in transitions, the best position has Estonia, while among countries of Western Balkans the best positioned is Macedonia.

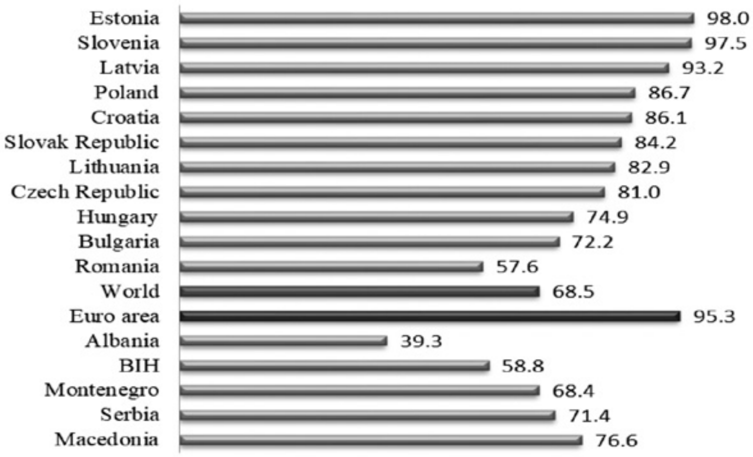


Image 1: Percentage of citizens older than 15 that have opened a bank account
Source: Authors, on the basis of: World Development Indicators database, World Bank, 2019.

However, the success of financial inclusion cannot be measured only by the indicator of the percentage of accounts in banks. It is necessary to observe the position of special groups, especially vulnerable ones. When the level of vulnerability of certain citizen categories is being analyzed, according to the data of World Bank the most vulnerable are the persons with elementary and lower education and the young of age 15-24.

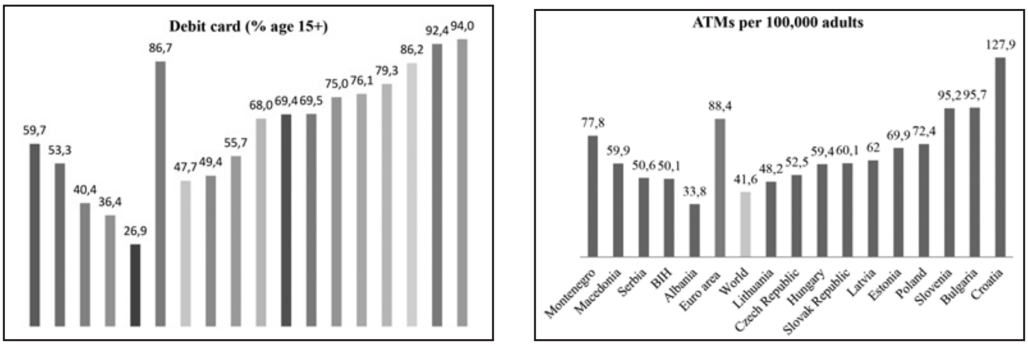


Image 2: Percentage of citizens older than 15 that use debit cards
and the number of ATMs per 100,000 adults
Source: Authors, on the basis of: World Development Indicators database, World Bank, 2019.

The development of electronic banking is related to wider and wider application of computer and telecommunication technology in the process of data and information processing and transferring. It leads to the implementation of new procedures and technologies that carry with themselves new challenges and possibilities. In this regard, in Slovenia and Estonia debit card is used by over 90% citizens older than 15. However, in Serbia it is only 59,7%, which tells about

unfavorable use of new payment methods (image 2). Debit card are used mostly by highly educated, while in this regard the most vulnerable are lower educated and the young of age 15-24.

Easier use of debit cards enables high number of ATMs, since in this way citizens can easily use banking services when a branch is not working or there is not any in the neighborhood. The number of ATMs, as well as the use of debit cards, is the lowest in Albania (image 2). Relatively low number of ATMs on 100 thousand citizens speaks about poor developed financial infrastructure. Optimal number of ATMs cannot be easily suggested, but in certain countries it surely should be higher.

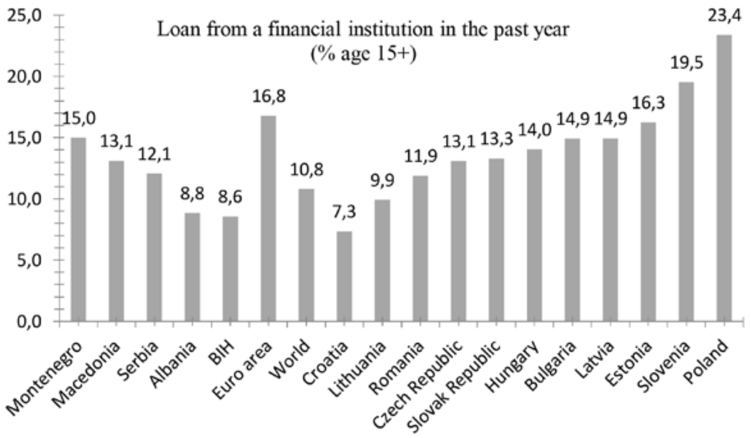


Image 3: Indebtedness of individuals with financial institutions
Source: Authors, on the basis of: World Development Indicators database, World Bank, 2019.

When it comes to the indebtedness of persons older than 15, it is noticeable that the biggest percentage of those that have loans is in Poland and Slovenia (image 3). On the other hand, the smallest percentage of indebtedness of population is in Croatia. The average level of indebtedness in the countries of Western Balkans is on the level of world average. The lack of accessibility to credits prolongs the poverty since the poor households decrease the level of education of its children (Jacoby and Skoufias, 1997).

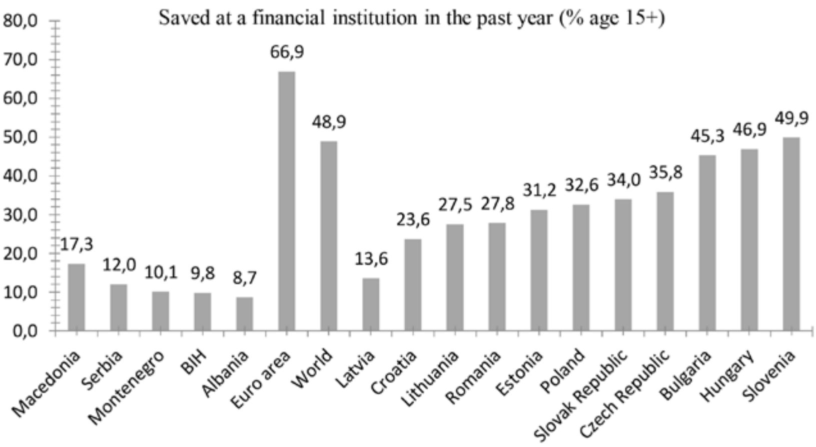


Image 4: Savings of individuals in financial institutions
Source: Authors, on the basis of: World Development Indicators database, World Bank, 2019.

On the basis of savings indicators in financial institutions (image 4), the countries of Western Balkans show lower degree of financial inclusion in relation to the average of Eurozone and in relation to the world average, while in all advanced countries in transition the savings are on lower level of the savings in Eurozone.

5. CONCLUSION

The analysis of the reached level of financial inclusion, based on the data of World Bank, implies the lagging of the countries of Western Balkans in relation to the advanced countries in transition, new members of European Union. In order for the observed countries to continue its development and get closer to the countries of Eurozone it is necessary to increase their financial inclusion. The positive effects of financial inclusion, among other things, are: higher economic growth, lower interest rates, lower costs, bigger payment safety, higher consumption, higher level of territorial and social inclusion, bigger savings and the use of interest, credits that provide for the poor citizens to finance the education of their children and extraordinary needs.

In order to expose the positive effects of financial inclusion it is necessary to firstly improve financial literacy of citizens. This implies education and protection of consumers in order to avoid the creation of expensive mistakes when signing financial contracts. In fact, the households should know finances so that they could with the same amount of money realize higher degree of satisfaction of needs. Then, it is necessary to increase the use of new technologies of mobile banking and electronic payment as main potential for the increase of financial inclusion. Also, insufficient financial inclusion opens the space for designing financial products that meet the needs of clients and offer financial services at prices that individuals can afford. For the realization of the mentioned measures the cooperation of private sector and government is necessary in order to improve financial inclusion of individuals.

REFERENCES

[1] Ben Naceur, S., Barajas, A., & Massara, A. (2015). Can Islamic Banking Increase Financial Inclusion?. IMF Working Papers 15/31, International Monetary Fund.
[2] Beshears, J., Choi, J.J., Harris, C., Laibson, D., Madrian, B.C & Sakong, J. (2015). Self Control and Commitment: Can Decreasing the Liquidity of a Savings Account Increase Deposits? NBER *Working Paper* No. 21474.
[3] Bokusheva. R. & Breustedt, G. (2012). The Effectiveness of Weather-Based Index Insurance and Area-Yield Crop Insurance: How Reliable are ex post Predictions for Yield Risk Reduction? Quarterly Journal of International Agriculture, 51(2), 135-156.
[4] Čihák, M., Demirgüç-Kunt, A., Feyen, E., Levine, R. (2012) Benchmarking Financial Development Around the World, *Policy Research Working Paper* 6175, World Bank, Washington.
[5] European Commission. (2008). Financial services provision and prevention of financial exclusion. Report by the Director General for Employment, Social Affairs and Equal Opportunities, European Commission.
[6] Sarma, M. (2008). Index of Financial Inclusion, ICRIER Working Paper, August 2008.
[7] Sredojević, S. (2016). Institutional contribution to financial inclusion through financial education activities – case of the banking sector of Serbia. Bankarstvo, 45(2), 56-75.
[8] World Bank (2012). Financial inclusion strategies reference framework. Washington.
[9] World Bank (2014). *Global Financial Development Report 2014,* Washington.
[10] World Bank (2019). World Development Indicators database, http://www.worldbank.org/

FINANCIAL PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN THE SLOVAK REPUBLIC

Jana Sochuľáková[1]
Katarína Kráľová[2]
Dagmar Petrušová[3]

DOI: https://doi.org/10.31410/EMAN.2019.465

Abstract: *Small and medium-sized enterprises are considered to be the most flexible, efficient and most advanced forms of enterprise within developed economies. They are characterized by high dynamics of development, adaptability to changing market requirements, flexibility and narrow specialization. They quickly adapt and respond sensitively to the change. Small and medium-sized enterprises can be considered to be holders of innovation, employment, social and regional integration. They guarantee higher efficiency and sustainable growth of the country's economy. For this reason, the countries devote maximum attention to the state of small and medium-sized enterprises and are constantly taking measures for their development. In Slovakia, more than 90% of all businesses are small and medium-sized enterprises. The aim of the paper is to evaluate the development of small and medium enterprises in the Slovak Republic and to assess their financial performance using financial analysis indicators.*

Keywords: *small and medium-sized enterprises, environment, financial performance, financial analysis, efficiency*

1. INTRODUCTION

Small and medium-sized enterprises (SME) are one of the most important parts of the economy in all developed economies. They are an irreplaceable source of growth, they contribute to the flexible introduction of new products, to the growth of innovative activities, to the development of a competitive environment, they are the bearers of progressive solutions, they create new employment opportunities and thus reduce unemployment. They adapt quickly and respond sensitively to change.[1] Historians have given little attention to small business in the past. In particular, large enterprises were of interest. Interest in the issue of small and medium-sized enterprises began in the second half of the 20th century, when the attention of economists focused on also economic entities whose benefits are increasing for the national economy. The biggest breakthrough for small and medium-sized businesses was the Bolton Conference in 1971, which laid the foundations for theoretical research in small and medium-sized enterprises.

In the Slovak Republic, the development of SMEs is associated with the transition to a market economy in the early 1990s. In this period, the birth and development of small and medium-sized enterprises is mainly connected with the collapse of larger state-owned enterprises during the privatization and liberalization of trade, when several small and medium-sized enterprises with foreign ownership were established.[2]

1 Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

2 Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

3 Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

The paper will focus on the evaluation of the development of SMEs in Slovakia and their regional distribution. Subsequently, using financial analysis indicators, we will assess the financial performance of SMEs in Slovakia.

2. DEVELOPMENT OF SMALL AND MEDIUM ENTERPRISES IN SLOVAKIA

Entrepreneurship in small and medium-sized enterprises is characterized by a strong specification. It is characterized by a high degree of flexibility and the possibility of faster adaptation to turbulent market environment conditions compared to large enterprises.[2] Therefore, the importance of small and medium-sized enterprises is constantly growing not only in Slovakia but also in other EU countries. According to the Statistical Office of the Slovak Republic, the year-on-year increase in the total number of active small and medium-sized enterprises was 1.8% in 2017. In absolute terms, the number of SMEs increased to 567,131. In 2017, especially the macroeconomic development and the stable pace of economic growth had a positive impact on SME business conditions. [8]

Table 1: Number of businesses according to individual legal forms and size categories of enterprises as of 31.12.2017. [6]

Size categories / legal forms	Enter-prises	Tradesman	Free occupa-tions	Farmers	Together	
					Abs.	% share
Micro enterprises (0 - 9)	203 092	322 580	19 198	5 246	550 016	96,9%
Small enterprises (10 - 49)	12 813	1 312	25	9	14 159	2,5%
Medium-sized enterprises (50-249)	2 900	55	1	0	2 956	0,5%
Large enterprises (250+)	661	1	0	0	662	0,1%
Total SMEs (0 - 249)	218 805	323 947	19 124	5 255	567 131	99,9%
Together business entities	219 466	323 948	19 124	5 255	567 793	100,0%

The development of the number of SMEs in the Slovak Republic has been growing since 2006, this development was maintained until 2011, when the number of small and medium-sized enterprises in the SR increased by 15.5% compared to 2006. After 2011, the overall number of small and medium-sized enterprises is characterized by different trends.

Table 2: Development of small and medium-sized enterprises

	Development of small and medium-sized enterprises					
year	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Total SMEs	481 028	500 557	537481	540 617	552 725	555 608
year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total SMEs	551 608	563 501	565 241	531 063	557 122	567 131

The entrepreneurial environment of the individual EU countries varies, and the conditions for doing business in individual regions of the SR also differ.

These differences cause uneven development of small and medium-sized enterprises in the Slovak Republic. Every fifth (22.3%) active small and medium-sized enterprise operates within the Bratislava region. In other regions of Slovakia, the representation of SMEs is much more even. Most of the small and medium-sized enterprises are located in the Žilina region with a share of 13.4%. The lowest representation of SMEs, at 9.6%, was recorded in 2017 in the Trenčín region.

Table 3: Regional distribution of small and medium enterprises in Slovakia [6]

	SME	%	Large enterprises	%	Total
Region of Bratislava	126 464	22,3%	217	32,8%	126 681
Region of Trnava	56 559	9,9%	57	8,6%	56 616
Region of Trenčín	54 273	9,6%	92	13,9%	54 365
Region of Nitra	68 947	12,2%	61	9,2%	69 008
Region of Žilina	76 199	13,4%	75	11,4%	76 274
Region of Banská Bystrica	56 650	10,0%	48	7,3%	56 698
Region of Prešov	70 616	12,5%	56	8,5%	70 672
Region of Košice	57 423	10,1%	55	8,3%	57 478
Total	567 131	100%	661	100%	567 792

3. PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN SLOVAKIA

Small and medium-sized enterprises are increasingly gaining market share and their share of the gross domestic product is also growing.[3] The economic importance of small and medium-sized enterprises is also reflected in a significant extent in the creation of added value, share in exports and so on. For this reason, the Slovak Business Agency regularly evaluates the financial situation of Slovak small and medium-sized enterprises based on a set of financial ratios that focus on liquidity, indebtedness, profitability and business productivity. The calculations of financial performance indicators were made on the basis of data from the financial statements of enterprises. Individually anonymous financial statements were obtained from the Data Center and were adjusted of entities with incorrectly completed items.

Liquidity indicators characterize the company's solvency. The optimum value of the total liquidity ratio ranges from 2 - 2.5. However, there are companies that only work with a small amount of stocks or without them, e.g. service providers. Therefore, the nature of entrepreneurial activity should also be taken into account when assessing liquidity indicators.

Table 4: Liquidity according to enterprise size criteria [7]

Size categories enterprises	2008	2009	2010	2011	2012	2013	2014	2015	2016	Index 16/08	Difference 16-08
Micro	1,37	1,26	1,27	1,26	1,30	1,48	1,39	1,48	1,58	1,15	0,21
Small	1,06	1,06	1,06	1,09	1,05	1,07	1,08	1,13	1,15	1,08	0,09
Medium sized	1,16	1,13	1,16	1,17	1,15	1,17	1,16	1,18	1,19	1,02	0,03
Large	1,26	1,23	1,23	1,23	1,25	1,39	1,33	1,41	1,50	1,19	0,24
Total SMEs	1,07	1,1	1,13	1,11	1,13	1,13	1,14	1,15	1,16	1,08	0,09

The risk of a threat is a decline in total liquidity below 1. In that case, even the monetization of the entire short-term assets will not cover the repayment of short-term debts, which may jeopardize the normal operation of the company. [4]

The highest values of the total liquidity indicator reach micro-enterprises throughout the analyzed period, which also recorded the highest increase in liquidity over the period. A slight decline in liquidity occurred in micro-enterprises in 2014, but since the following year total liquidity is increasing again. Small and medium-sized enterprises had a less liquid asset structure than micro-enterprises.

From the regional point of view, the long-term growing trend of the indicator of total liquidity in all regions of Slovakia persists. In 2016, all regions achieved the highest value of the coefficient of total liquidity for the whole period under review. Enterprises operating in the Trenčín region have the most liquid property structure, in 2016 the coefficient increased to 1.57. Conversely, the lowest level of liquidity is achieved by enterprises operating in the Trnava Region. The most dynamic growth of total liquidity reached in the monitored period SMEs from Banská Bystrica (increase by 28%) and Trenčín region.

Table 5: Regional distribution of SMEs in terms of liquidity [7]

	2008	2009	2010	2011	2012	2013	2014	2015	2016	Index 16/08	Differ-ence 16-08
Region of Bratislava	1,29	1,25	1,23	1,27	1,25	1,36	1,30	1,40	1,51	1,17	0,22
Region of Trnava	1,27	1,21	1,22	1,20	1,21	1,33	1,32	1,37	1,44	1,13	0,17
Region of Trenčín	1,24	1,23	1,25	1,25	1,31	1,45	1,43	1,45	1,57	1,26	0,33
Region of Nitra	1,31	1,26	1,24	1,23	1,27	1,43	1,35	1,44	1,53	1,16	0,22
Region of Žilina	1,23	1,20	1,22	1,19	1,23	1,45	1,36	1,43	1,47	1,19	0,24
Region of Banská Bystrica	1,19	1,17	1,22	1,22	1,25	1,39	1,35	1,43	1,53	1,28	0,34
Region of Prešov	1,26	1,25	1,23	1,24	1,28	1,44	1,37	1,42	1,49	1,18	0,23
Region of Košice	1,22	1,2	1,21	1,18	1,23	1,39	1,32	1,38	1,45	1,18	0,23

The debt indicators serve to monitor the structure of the company's financial resources. The share of own and foreign sources affects the financial stability of the company. A high share of own resources ensures stability and independence for the company. High indebtedness reflects the risk of dependence on foreign sources, which is a sign of instability for creditors or potential owners. The Total Indebtedness Indicator can range from 0% to 100%. If the indicator reaches 0%, it means that the company only works using its own capital. Conversely, if the indicator reaches 100%, the enterprise uses only foreign capital. The recommended values of the indicator are very individual - depending on the subject of business and the sector in which the business operates. Mostly they range from 30 to 70%.

Table 6: Total asset debt of small and medium enterprises in Slovakia [7]

Size categories enterprises	2008	2009	2010	2011	2012	2013	2014	2015	2016	Index 16/08	Differ-ence 16-08
Micro	59,70	65,20	65,8	65,40	63,7	67,70	60,48	57,68	55,56	0,93	-4,14
Small	76,10	75,7	76,5	74,40	76,80	76,10	74,37	72,36	70,85	0,94	-5,25
Medium	67,5	65,40	68,10	67,10	70,20	68,4	68,41	68,60	67,29	0,99	-0,21
Total	64,40	66,6	67,60	66,80	65,70	60,5	62,49	59,73	57,54	0,89	-6,86
Large	66,20	64,9	65,40	66,6	66,20	65,7	64,40	65,38	65,77	0,99	-0,43

In all size categories of SMEs, the indicator of total debt decreased in the period under review. The biggest decrease was recorded by small enterprises, whose total indebtedness from 2008 to 2016 decreased by 5.25%. Nevertheless, small enterprises remain the most heavily indebted SMEs. In the long term, they use more than 70% of foreign resources to cover the company's assets. The least indebted business entities during the whole period analyzed are micro-enterprises, whose level of total indebtedness in 2016 was 55.56%. Indebtedness of medium-sized enterprises has long been just below 70%.

Table 7: Regional distribution of SMEs in terms of total asset debt [7]

	2008	2009	2010	2011	2012	2013	2014	2015	2016	Index 16/08	Differ-ence 16-08
Region of Bratislava	64,7	67,30	68,30	67,30	67,60	63,70	65,69	61,54	58,77	0,90	-5,93
Region of Trnava	64,3	66,40	67,60	67,90	67,10	62,10	63,26	60,60	58,35	0,90	-5,95
Region of Trenčín	65,5	66,40	66,20	65,70	63,00	59,00	60,14	57,93	55,28	0,84	-10,2
Region of Nitra	62,6	65,50	66,10	65,90	64,10	59,20	61,55	58,66	56,68	0,90	-5,92
Region of Žilina	65,2	67,70	67,60	68,00	66,20	58,00	60,82	58,71	57,86	0,88	-7,34
Region of Banská Bystrica	65,2	66,60	67,20	66,40	64,30	59,50	60,62	58,87	56,28	0,86	-8,92
Region of Prešov	62,8	64,60	65,90	63,00	62,60	56,80	59,09	57,49	55,88	0,88	-6,92
Region of Košice	65,2	67,10	67,20	67,20	65,90	60,00	61,90	61,03	58,34	0,89	-6,86

From the regional point of view, the total debt of assets in all Slovak regions decreased in the period under review. The most significant decrease in the use of foreign resources occurred in the Trenčín, Banská Bystrica and Žilina regions. In the overall percentage, the indebtedness of small and medium-sized enterprises was balanced from the regional point of view and in 2016 ranged from 55.28% in the Trenčín region to 58.77% in the Bratislava region.

Profitability indicators reflect the profitability of corporate efforts. They synthesize the ability of liquidity, activity and indebtedness indicators to reflect the overall outcome of business efforts.[4] Profitability of assets expresses the profitability of the total assets of the company, i.e. how much profit a business is able to make using its assets. Profitability indicators should be consistent with maximizing business efficiency as high as possible, but in any case, positive.

The profitability of small and medium-sized enterprises as a result of the economic crisis has declined slightly, but has been on an upward trend since 2011. The highest profitability growth in the analyzed period was achieved by micro-enterprises. In the last three years analyzed, differences in results between different size categories have been reduced. Return on Assets In 2016, the value of assets in SMEs was very similar in all categories of SMEs - in the case of micro and small enterprises, the return on assets was the same - at 3.68%. The return on assets of medium-sized enterprises was lower than in the case of micro and small enterprises for the first time in history**.**

Table 8: Return on assets by size criteria [7]

Size categories enterprises	2008	2009	2010	2011	2012	2013	2014	2015	2016	Index 16/08	Differ-ence 16-08
Micro	0,22	0,00	0,00	0,00	0,00	0,00	2,91	3,44	3,68	16,72	3,46
Small	2,89	0,92	1,49	1,51	1,13	1,36	2,38	3,52	3,68	1,27	0,79
Medium	3,48	1,33	2,58	2,87	2,25	2,52	3,39	3,76	3,55	1,02	0,07
Total	0,79	0,00	0,04	0,03	0,00	0,00	2,09	3,47	3,67	4,64	2,88
Large	3,09	2,34	3,36	3,72	4,01	3,26	4,14	4,18	4,61	1,49	1,52

The profitability of small and medium-sized enterprises as a result of the economic crisis has declined slightly, but has been on an upward trend since 2011. The highest profitability growth in the analyzed period was achieved by micro-enterprises. In the last three years analyzed, differences in results between different size categories have been reduced. In 2016, the value of assets in SMEs was very similar in all categories of SMEs - in the case of micro and small enterprises, the return on assets was the same - at 3.68%. The return on assets of medium-sized enterprises was lower than in the case of micro and small enterprises for the first time in history**.**

Table 9: Regional distribution of MSE in terms of asset profitability [7]

	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**Index 16/08**	**Differ-ence 16-08**
Region of Bratislava	0,72	0,00	0,00	0,00	0,00	0,00	1,54	2,89	3,13	4,62	2,61
Region of Trnava	1,17	0,08	0,25	0,19	0,10	0,01	2,14	3,03	3,64	3,11	2,47
Region of Trenčín	0,86	0,00	0,23	0,17	0,07	0,10	2,83	4,42	4,71	5,47	3,85
Region of Nitra	0,78	0,09	0,27	0,19	0,04	0,08	2,37	3,49	3,59	4,60	2,81
Region of Žilina	1,07	0,07	0,17	0,10	0,00	0,04	2,87	4,71	4,40	4,11	3,33
Region of Banská Bystrica	0,64	0,00	0,08	0,07	0,00	0,00	2,34	3,77	3,68	5,75	3,04
Region of Prešov	0,99	0,05	0,24	0,14	0,05	0,00	2,47	4,06	4,02	4,06	3,03
Region of Košice	0,48	0,00	0,00	0,00	0,00	0,00	1,75	3,01	3,42	7,12	2,94

Even from the regional point of view, the profitability indicator of the assets is significantly increasing over the period under review. After the outbreak of the crisis in 2009, the profitability of SMEs fell to values close to zero. Almost zero return on assets continued until 2013. In 2014, the recovery started, and asset profitability increased in all Slovak regions. The most dynamic increase in the profitability of assets was achieved by SMEs in the Košice region, up to a 7-fold increase compared to 2008. In other regions, profitability increased from four to five times. In 2016, the profitability of SME assets broken down by business location ranged from 3,13% in the Bratislava Region to 4,71% in the Trenčín Region.

4. CONCLUSION

The dynamic development of small and medium-sized enterprises is one of the basic assumptions of a healthy economic development of the country. Small and medium-sized enterprises in Slovakia make up 99.9% of the total number of businesses. In the Slovak Republic, the development of small and medium-sized enterprises is associated with the transition to a market economy in the early 1990s. According to the Statistical Office of the Slovak Republic, the year-on-year increase in the total number of active small and medium-sized enterprises was 1.8% in 2017. In 2017, we recorded the highest level of entrepreneurial activity of small and medium-sized enterprises in the Bratislava region. On the contrary, the lowest rate of business activity was achieved in the districts of southern and eastern Slovakia. Indicators of financial performance of small and medium-sized enterprises achieve the best values in the regions of Western Slovakia, while the lowest values were recorded in the regions of Eastern Slovakia.

Small and medium-sized enterprises are an important part of the economy of every state. They are much more flexible in adapting to new conditions than large enterprises. They are con-

sidered to be the accelerator of the development of every developed economy, including the land development of the country. Small and medium-sized enterprises are considered the most flexible, effective and progressive forms of business.[5] That is why interest in small and medium-sized enterprises is constantly growing.

REFERENCES

[1] Havierniková, K., Krajňáková, E. (2018) Hodnotenie miery vplyvu klastrov na rozvoj regiónov. Trenčín TnUAD 2018, 320 s., ISBN 978-80-8075-823-3
[2] Kráľová, K. (2016) Ekonomika malých a stredných podnikov. Trenčín TnUAD 2017, 170 s, ISBN978-80-8075-766-3
[3] Kráľová, K., Sochuľáková, J., Petrušová, D. (2017) Malé a stredné podniky a ich úloha v regionálnom rozvoji. In: Aktuálne problémy podnikovej sféry 2017. Zborník vedeckých prác. Ekonóm, Bratislava, str. 589-599
[4] Sochuľáková, J. (2018) Finančná a ekonomická analýza podniku. Trenčín TnUAD 2018, 120 s. ISBN 978-80-8075-836-3
[5] Strážovská, H. a kol. (2016) Malé a stredné podnikanie (zmeny v obsahu ekonomických nástrojov). Bratislava, Sprint 2016, 313 s. ISBN 978-80-89710-2108
[6] Malé a stredné podnikanie v číslach v roku 2017. Bratislava 2018.
Dostupné na: http://www.sbagency.sk/sites/default/files/msp_v_cislach_v_roku_2017_infograf_sep2018.pdf
[7] Analýza ukazovateľov finančnej výkonnosti MSP v roku 2016. Bratislava 2018.
Dostupné na: http://www.sbagency.sk/sites/defautl/files/12_analyza_ukazovatelov_financnej_vykonnosti_msp_2016.pdf
[8] Správa o stave malého a stredného podnikania v Slovenskej republike v roku 2017. Bratislava 2018.
Dostupné na: http://www.sbagency.sk/sites/default/files/sprava_o_stave_msp_v_sr_v_roku_2017.pdf

SPLETNO OGLAŠEVANJE V VISOKOŠOLSKEM PROSTORU – ANALIZA IZBRANIH TUJIH FAKULTET

WEB ADVERTISING IN HIGHER EDUCATION - ANALYSIS OF SELECTED FOREIGN FACULTIES

Tina Vukasović[1]

DOI: https://doi.org/10.31410/EMAN.2019.473

Povzetek: *Koncept blagovnih znamk se hitro širi s trgov izdelkov na trge storitev, kjer se srečujemo s storitveno blagovno znamko. K temu sta najbolj pripomogla vse večja in hitrejša razvitost storitvenih dejavnosti in tudi povečana konkurenca na trgu njihovih ponudnikov. Širitev pomena uporabe storitvenih znamk se uveljavlja na vseh poslovnih področjih, med njimi vse bolj tudi v visokem šolstvu. Slednje dokazujejo tudi rezultati vsakoletne raziskave, ki prikazuje lestvico najuglednejših univerz sveta. »Biti primerljiv s sorodnimi institucijami v tujini je postal postulat sodobnega visokošolskega prostora, v katerem odjemalci izobraževalnih storitev izbirajo med različnimi možnostmi izobraževanja v najširšem pomenu besede, lahko bi celo rekli »nakupujejo« (izbirajo program, visokošolsko institucijo in podobno). V raziskavi smo z uporabo metode benchmarking opravili analizo spletnega oglaševanja in spletne prisotnosti (on line) izbranih visokošolskih ustanov po svetu: identificirali smo platforme na katerih izbrane fakultete spletno oglašujejo, identificirali oblike spletnega oglaševanja, ki jih uporabljajo izbrane fakultete v komuniciranju na trgu ter napravili analizo ključnih vsebin spletnega oglaševanja/spletne prisotnosti izbranih fakultet.*

Ključne besede: *spletno oglaševanje, blagovna znamka, visokošolski prostor*

Abstract: *The concept of brands is rapidly expanding from product markets to service markets where we face a service brand. The increasing and faster development of service activities, as well as increased competition in the market of their providers, have been the main contributor to this. The expansion of the importance of the use of service brands is being realized in all business areas, among them increasingly in higher education. The results of the annual survey, which show the scale of the most distinguished universities of the world, are also proved by the latter. „Being comparable to related institutions abroad has become a postulate of a modern higher education space in which the education service providers choose among the various possibilities of education in the broadest sense of the word. In the survey, using the benchmarking method, we carried out an analysis of online advertising and online presence of selected fifteen higher education institutions around the world. We identified platforms on which higher education institutions are advertised online, identified the forms of online advertising, and analyzed key contents of online advertising/online presence of selected faculties.*

Keywords: *web advertising, brand, higher education, faculty*

---

1. UVOD

Blagovne znamke postajajo ena izmed aktualnejših tem razmišljanj in pogovorov na poslovnem področju. Opremljanje oziroma označevanje z blagovno znamko je v današnjem času tako močan dejavnik, da skoraj ni izdelka oziroma storitve, ki ne bi bila označena z imenom blagovne znamke. Strokovna in znanstvena literatura ponuja številne opredelitve blagovne znamke. Poleg nadgradenj, ki nastajajo pri opredelitvah blagovne znamke, nastajajo nadgra-

[1] DOBA Fakulteta Maribor, Prešernova ulica 1, 2000 Maribor, Slovenija

dnje tudi pri širitvi samega koncepta blagovne znamke. Osnovne ideje in pristopi so bili namreč razviti za blagovne znamke izdelkov [25], medtem ko se danes koncept blagovnih znamk hitro širi s trgov izdelkov na trge storitev, kjer se srečujemo s storitveno blagovno znamko. K temu sta najbolj pripomogla vse večja in hitrejša razvitost storitvenih dejavnosti in tudi povečana konkurenca na trgu njihovih ponudnikov. Te razmere so spodbudile in pravzaprav prisilile organizacije, da so se začela zavedati, kako so storitvene znamke lahko pomemben element njihove konkurenčne prednosti ali pa pomanjkanje le-teh predstavlja njihovo šibkost.

Naraščajoče število visokošolskih zavodov in s tem povezano povečevanje konkurence na področju visokega šolstva, postaja značilno tudi za slovenski visokošolski prostor. Zaradi vse večjega števila javnih in zasebnih visokošolskih zavodov, te danes tekmujejo za najboljše študente oziroma nekatere za študente nasploh. Visokošolski zavodi so začeli izvajati številne marketinške aktivnosti, med katerimi je najbolj pogosta uporaba marketinškega komuniciranja povezanega z blagovno znamko s katero visokošolski zavod upravlja. Čeprav se potrošniki srečujejo z neotipljivimi elementi ponudbe, skušajo visokošolski zavodi narediti storitve otipljivejše. Dodajajo jim vrednost z otipljivimi elementi ponudbe, z zagotavljanjem konsistentne kakovosti storitev in s prilagajanjem storitev potrebam potrošnikov. Visokošolski zavodi morajo ponujati kakovostne storitve, ki so za modernega potrošnika temeljnega pomena.

»Biti primerljiv s sorodnimi institucijami v tujini je postal postulat sodobnega visokošolskega prostora, v katerem odjemalci izobraževalnih storitev izbirajo med različnimi možnostmi izobraževanja v najširšem pomenu besede, lahko bi celo rekli »nakupujejo« (izbirajo program, visokošolsko institucijo in podobno). Biti »boljši« od konkurence pomeni pridobivanje konkurenčne prednosti institucije na trgih izobraževalnih storitev, ki pa v internacionalizacijskih procesih niso omenjeni le na »lokalni prostor«. Trg pa v želji po zadovoljitvi čim bolj različnih ciljnih skupin in odjemalcev »zahteva« različnost in drugačnost« [18].

2. SPLETNO OGLAŠEVANJE

Spletno oglaševanje se je glede raziskav koristnosti izkazalo za zelo donosno za mala in tudi velika podjetja. Google, ki je svetovno znan brskalnik pridobiva kar 95% svojih prihodkov iz spletnega oglaševanja. Oseba na dan prejme nekje 1.700 oglasov od katerih pogleda nekje samo polovico. Praksa je pokazala, da posamezna podjetja za svoje potrošnike že prej filtrirajo oglase kar jim pripomore k temu, da zajamejo ciljno skupino potrošnikov na trgu. S to tematiko so podjetja prepoznavnost svojih blagovnih znamk dvignila za kar 31% [8].

V današnjem svetu, ko je tehnologija del življenja se kar pogosto pojavi primer, ko brskamo po spletu za neko stvar nam potem naslednjič že brskalnik sam ponudi tisto, kar smo prej že iskali. Vedenjski namen spletnega oglaševanja je, da nadzoruje podatke o vsakem posamezniku kaj dela na spletu (kliki, iskanje, družbena omrežja, nakupi na spletu). Ti vedenjski nameni podjetjem pomagajo, da zadane njihovo oglaševanje ciljne kupce katerim je blagovna znamka namenjena. Personalizacija oglasov na spletu spada v marketinški praksi pod novo vrsto oglaševanja.

Pri spletnem oglaševanju poznamo več oblik spletnega oglaševanja, med njimi najpogostejše slikovna pasica, tekstovni oglas, oglas vmesne strani, oglas v pojavnem oknu, opt-in oglaševanje, HTML oglas, hibridni oglas in multimedijski oglas.

Slikovna pasica (slika 1) ali znana tudi kot banner oglaševanje je narejena na podlagi slike in je manjša oblika spletnega oglaševanja. Je odlično orodje za znamčenje podjetja. Ker vemo, da včasih slika pove več kot 1000 besed, je slikovna pasica rimerno orodje za povečanje prepoznavnosti podjetja oziroma blagovne znamke in povečanje obiska spletne strani podjetja. Slikovna pasica je lahko različne velikosti in oblike, lahko je statisčna ali dinamična. Oblikovana je kot pravokotni grafični zaslon, ki se razteza preko vrha, dna ali strani spletnega mesta. Že samo ime slikovna pasica nam pove, da je narejena na podlagi slike in ne besedila [14].

Slika 1: Slikovna pasica

Tekstovni oglasi (slika 2) so sestavljeni iz nekaj vrstic teksta, ki je prodajno naravnan. So popolnoma vključeni v vsebino spletne strani in so zaradi tega morda najmanj vsiljiv način spletnega oglaševanja. Tekstovni oglasi so predstavljeni le z besedilom in ne vključujejo grafičnih elementov. Najpogosteje gre za povezavo do oglaševalčeve spletne strani, ki je uvrščena v samo besedilo na spletnih straneh. Oglasi so omejeni s številom znakov in morajo vsebovati klice k akciji [6], [14].

Slika 2*:* Primer Googlovih tekstovnih oglasov

Pri oglasu vmesne strani (slika 3) gre za obliko oglasa, ki se prikazuje na prehodu med stranjo A in stranjo B. Ta prehod deluje tako, da ob kliku na povezavo na strani A se namesto strani B, prikaže stran z oglasom. Stran z oglasom pa vsebuje povezavo do strani B oziroma se po določenem času stran B samodejno naloži. Pri podjetjih je ta način oglaševanja priljubljen zato, ker ponuja veliko oglasnega prostora, tako za slikovni kot tekstovni material [14].

Slika 3*:* Oglas vmesne strani

Oglas v pojavnem oknu (slika 4) se pojavi v manjšem oknu, ko obiščemo določeno stran ali le to zapustimo. Imenuje se tudi pop up pojavno okno, saj nam skoči na pomoč pred oči, ko se spletna stran odpre/zapre. Tudi ta način oglaševanja postaja vse bolj priljubljen, res pa je, da lahko doseže nasproten učinek pri obiskovalcu, saj je lahko preveč agresiven [14].

Slika 4: Oglas v pojavnem oknu

Slika 5: Multimedijski oglas

Opt-in oglaševanje postaja vse bolj popularen tip oglaševanja in predstavlja pošiljanje elektronske pošte osebam, ki so izrazile željo za pridobitev informacij o določeni vsebini. HTML oglasi združujejo grafične in tekstovne elemente z ostalimi HTML elementi. Hibridni oglasi združujejo aspekte drugih tipov oglaševanja, npr. tekst in ‘’banner’’ za doseganje efektivnosti oglasa pri obiskovalcih.

Značilnost multimedijskih oglasov (slika 5) je, da vsebujejo različne multimedijske elemente. To so predvsem zvok, video, animacije. Oglas, ki torej združuje vse vrste komunikacije, ki doseže ciljnega kupca in ga prepriča, da naj ali obišče spletno stran, opravi nakup ali pošlje povpraševanje [14].

3. NAMEN IN CILJI RAZISKAVE

Namen raziskave je analizirati spletno oglaševanja in spletno prisotnost izbranih (on line) visokošolskih ustanov po svetu.

Cilji raziskave:

- opraviti analizo spletnega oglaševanja in spletne prisotnosti (on line) izbranih visokošolskih ustanov po svetu
- identificirati platforme na katerih izbrane fakultete spletno oglašujejo (npr. Facebook, Instagram, YouTube, itd...)
- identificirati oblike spletnega oglaševanja, ki jih uporabljajo izbrane fakultete
- analizirati ključne vsebine spletnega oglaševanja/spletne prisotnosti, ki jih izbrane fakultete vključujejo v komunikacijo s ciljno javnostjo

4. METODOLOGIJA RAZISKAVE

V raziskavi so bile uporabljene metode: benchmarking, metoda deskripcije, kompilacije, komparacije, sinteza in analiza. Izbrane fakultete, vključene v raziskavo, se uvrščajo med top 10 on line fakultet v Evropi (https://www.mastersportal.com/articles/1308/10-great-european-distance-learning-universities.html). Ob omenjenih smo izbrali še nekatere prepoznavne tuje on line fakultete.

Vključene (on line) fakultete za analizo v raziskavi:

- ABMS The Open University of Switzerland – http://www.abmswiss.com/
- Aston University - https://www2.aston.ac.uk/
- EMAS Business School - https://emasglobe.com/
- London School of International Business - https://www.lsib.co.uk/
- Mendel University in Brno – http://mendelu.cz/en/
- Newcastle College – http://www.ncl-coll.ac.uk/
- Nottingham Trent University - https://online.ntu.ac.uk/
- Online Business School, Barcelona - https://www.obs-edu.com/en
- Stenden University - https://stenden.com/en/
- Telecom Ecole de Management – Institute Mines-Télécom Business School – http://www.telecom-em.eu/en
- University of Birmingham Online - https://hub.birmingham.ac.uk/
- University of Essex Online, https://online.essex.ac.uk/
- Utrecht University - https://www.uu.nl/en
- Wageningen University and Research, https://www.wur.nl/en/wageningen-university.htm
- Walden University - https://international.waldenu.edu/

5. REZULTATI RAZISKAVE

Storitvene znamke so za potrošnike sredstvo razlikovanja med storitvami in pomemben dejavnik pri sprejemanju nakupnih odločitev, ker ni otipljivih elementov ponudbe, ki pomenijo zagotovilo za kakovost, zaradi katere potrošniki vedo, kakšne koristi lahko pričakujejo. Širitev pomena uporabe storitvenih znamk se uveljavlja na vseh poslovnih področjih, med njimi vse bolj tudi v visokem šolstvu. Slednje dokazujejo tudi rezultati vsakoletne raziskave, ki prikazuje lestvico najuglednejših univerz sveta. Lestvico so sestavili pri reviji Times Higher Education [20]. Razvrstitve najuglednejših univerz sveta sicer nimajo uradnega statusa, a postajajo čedalje pomembnejši del trženja univerz samih, še posebej v času globalizacije visokega izobraževanja. Zadnji seznam samo še krepi pojav „globalnih superznamk", na čelu katerih so institucije, kot so Stanford na zahodni ameriški obali in Harvard na vzhodni. Na evropski lestvici najuglednejših univerz se pojavljajo ugledne univerze, ki jih lahko imenujemo tudi kot ugledne blagovne znamke visokošolskega poslovnega okolja. Med slednjimi velja omeniti Oxford, Cambridge. Značilno je, da najuglednejše univerze (institucije) komunicirajo svoje storitve globalno, kar pripomore k utrjevanju njihovega položaja na trgu.

V raziskavi smo opravili analizo spletnega oglaševanja in spletne prisotnosti (on line) izbranih visokošolskih ustanov po svetu: identificirali platforme na katerih izbrane fakultete spletno oglašujejo, identificirali oblike spletnega oglaševanja, ki jih uporabljajo izbrane fakultete ter napravili analizo ključnih vsebin spletnega oglaševanja/spletne prisotnosti izbranih fakultet.

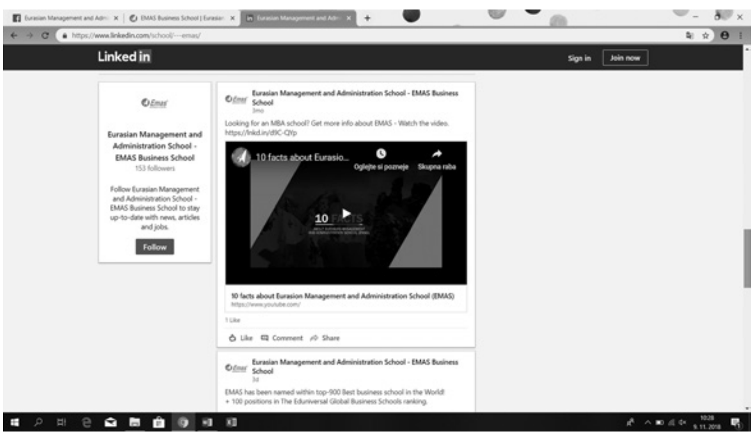
Sklepne ugotovitve so sledeče:

- družbena omrežja (Facebook, Instagram, LinkedIn, Twitter, Google+, Pinterest, Snapchat in YouTube), lastna spletna stran in email marketing so osrednji kanal komunikacije s ciljnimi skupinami
- kot oblike spletnega oglaševanja se najpogosteje poslužujejo slikovnih pasic, tekstovnih oglasov, oglasov v pojavnem oknu, multimedijskih oglasov, deljenja videovsebin, pop-up oglase, ozadja (Wallpaper)
- ključne vsebine spletnega oglaševanja:
- izpostavljanje kvalitet učnega programa, predstavitev študijskih programov in ugodnosti, katerih so deležni študenti, aktivno objavljanje novic in informacij o dogajanju na fakulteti, gostujoča predavanja, skrb za okolje, povezava z naravo, raznolikost in vključevanje vseh študentov, enakopravnost ter užitek ob študiju, sprejemanje vseh študentov brez diskriminacije, usmerjenost v raziskave, inovativnost v izobrazbi in raziskovanju, odličnost študentov na tekmovanjih, uporaba najnovejše tehnologije, številne karierne možnosti, poudarek na praktičnem učenju.
- preko video vsebin na Youtubu predstavljajo kratke predstavitvene filme o poteku študija, razlogih zakaj izbrati njihovo fakulteto, izseke iz dogajanja na fakulteti- posnetke iz vsakdana (zgodbe), mnenja študentov, diplomantov, prednosti učnih programov in druge. Vsebine sporočil so večinoma predstavitve fakultete, študija, predstavljajo predavatelje, ponosno predstavljajo svoje dosežke in dosežke študentov, dnevne dogodke, natečaje in akcije. Videi so večinoma namenjeni promociji fakultete kot študentom prijazne ustanove s kvalitetnim učnim programom. Na ta način želijo pritegniti, motivirati obstoječe in bodoče študente, ter ostale. V video vsebinah poudarjajo tudi praktično izobraževanje, sodelovanje s podjetji, s fokusom na poklicih, ki so in bodo vedno bolj aktualni.
- napovedovanje prihajajočih dogodkov in spodbujanje študentov s slikovnimi in tekstovnimi objavami ter oglasi, ki vključujejo bodisi karikature ali spodbudne misli, njihove objave pa poskušajo ovrednotiti občutek študentom prijazne fakultete in obenem poudarjajo pomembnost visokih standardov izobrazbe.

- preko WhatsAppa možnost komuniciranja s fakulteto v živo in se lahko tudi na ta način vpišeš v študijski program.
- promocija tudi preko e-novic z objavami novosti, dogodkov, intervjujev študentov, ki nadaljujejo uspešno pot po študiju in dajejo priporočila bodočim študentov.

Slika 6: Facebook profil Utrecht University
Vir: Facebook, 2018 https://www.facebook.com/UtrechtUniversity/?ref=br_rs

Slika 7: Instagram profil fakultete Wageningen University and Research
Vir: Wageningen University&Research, b. l.



Slika 8: Linkedin profil fakultete EMAS Bussiness School
Vir: LinkedIn, 2018 https://www.linkedin.com/school/---emas/

Slika 9: Oglas v pojavnem oknu Nottingham Trent University Online
Vir: https://www.masterstudies.com/universities/United-Kingdom/NTU-BS/

LITERATURA

[1] ABMS (2018). *ABMS The Open University of Switzerland*. Elektronski vir: http://www.abmswiss.com/ [Dostop 28 November June 2018]

[2] Aston (2018). *Aston University*. Elektronski vir: https://www2.aston.ac.uk/ [Dostop 28 November June 2018]

[3] EMAS. (2018). *EMAS Business School*. Elektronski vir: https://emasglobe.com/ [Dostop 28 November 2018]

[4] Essex (2018). *University of Essex Online*. Elektronski vir: https://online.essex.ac.uk/ [Dostop 28 November 2018]

[5] Facebook. (2018). *Utrecht University*. Elektronski vir: https://www.facebook.com/UtrechtUniversity/?ref=br_rs [Dostop 28 November 2018]

[6] Hafner, T. (2015). *Spletno oglaševanje blagovne znamke vin Corvo* (magistrsko delo). Ekonomsko-poslovna fakulteta, Maribor.

[7] Instagram. (2018). *Wageningen University&Research*. Elektronski vir: https://www.instagram.com/uniwageningen/ [Dostop 28 November 2018]

[8] Investopedia (b.l). *Banner Advertising*. Elektronski vir: https://www.investopedia.com/terms/b/banneradvertising.asp54983

[9] Linkedin. (2018). *EMAS Business School*. Elektronski vir: https://www.linkedin.com/school/---emas/ [Dostop 28 November 2018]

[10] LSIB (2018). *London School of International Business*. Elektronski vir: https://www.lsib.co.uk/ [Dostop 28 November 2018]

[11] Mendel (2018). *Mendel University in Brno*. Elektronski vir: http://mendelu.cz/en/ [Dostop 28 November 2018]

[12] Newcastle College (2018). *Newcastle College.* Elektronski vir: http://www.ncl-coll.ac.uk/ [Dostop 28 November 2018]

[13] Nottingham (2018). *Nottingham Trent University*. Elektronski vir: https://online.ntu.ac.uk/ [Dostop 28 November 2018]

[14] Ogrinc, A. (2012). Oblike spletnega oglaševanja. Dosegljivo na https://spletnik.si/blog/oblike-spletnega-oglasevanja/ [Dostop: 7.12.2018].

[15] Online Bussines School (2019). Online Business School, Barcelona. Elektronski vir: https://www.obs-edu.com/en [Dostop 28 November 2018]
[16] Shopify (b.l). *Facebook Ad Types for Your Ecommerce Store*. Pridobleno s: https://www.shopify.com/guides/facebook-advertising/types
[17] Stenden (2018). *Stenden University*. Elektronski vir: https://stenden.com/en/ [Dostop 28 November 2018]
[18] Štrbač, J. (2011). *Marketing v visokem šolstvu*. Elektronski vir: http://dk.fdv.uni-lj.si/diplomska/pdfs/strbac-jelena.pdf [Dostop 28 November 2018]
[19] Telecom (2018). *Telecom Ecole de Management – Institute Mines-Télécom Business School.* Elektronski vir: http://www.telecom-em.eu/en [Dostop 28 November 2018]
[20] Times Higher Education (2018). *World University Rankings 2018*. Elektronski vir: (https://www.timeshighereducation.com/world-university-rankings/2018/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats [Dostop 28 November 2018]
[21] University of Birmingham (2018). *University of Birmingham Online - https://hub.birmingham.ac.uk/ [*Dostop 28 November 2018]
[22] Utrecht (2018). *Utrecht University.* Elektronski vir: https://www.uu.nl/en [Dostop 28 November 2018]
[23] Wageningen (2018). *Wageningen University and Research.* Elektronski vir: https://www.wur.nl/en/wageningen-university.htm [Dostop 28 November 2018]
[24] Walden University - https://international.waldenu.edu/ [Dostop 28 November 2018]
[25] Yoo, B., Donthu, N. in Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science,* 28 (2): 195–211.
[26] 10 Great European Distance Learning Universities. Elektronski vir: https://www.mastersportal.com/articles/1308/10-great-european-distance-learning-universities.html [Dostop 8. December 2018]

VPLIV OHRANJANJA DELOVNE SPOSOBNOSTI STAREJŠIH ZAPOSLENIH NA NJIHOVO DELOVNO ZAVZETOST

THE IMPACT OF PRESERVATION OF THE WORK ABILITY OF OLDER EMPLOYEES ON THEIR WORK ENGAGEMENT

Maja Rožman[1]
Polona Tominc[2]

DOI: https://doi.org/10.31410/EMAN.2019.483

Povzetek: *V okviru demografskih sprememb in aktivnega staranja na delovnem mestu, upravljanje starejših postaja vedno pomembnejše področje managementa človeških virov, Staranje delovne sile je ključnega pomena za prihodnjo gospodarsko rast, konkurenčnost in uspešnost, kar pa bo vse bolj odvisno od tega, kako učinkovito lahko delodajalci znali izkoristiti prednosti starejših zaposlenih. Upravljanje starejših zaposlenih je razvijajoča se veja na področju managementa človeških virov in bo v prihodnosti ponudila številne rešitve in koncepte, kako reševati problematiko starejših zaposlenih v podjetjih. Raznolikost delovne sile se danes šteje kot pomemben dejavnik uspešnosti podjetij. Zato je treba starostno raznolikost v podjetjih priznati in jo ceniti, hkrati pa se moramo zavedati, da je treba ustvariti primerno okolje za spoštovanje raznolikosti delovne sile. Starostna raznolikost zaposlenih mora postati del splošne strategije podjetja za enakost in raznolikost. Glavni cilj prispevka je ugotoviti vpliv ohranjanja delovne sposobnosti starejših zaposlenih na njihovo delovno zavzetost v srednje velikih in velikih slovenskih podjetjih.*

V podjetjih, ki so bila vključena v raziskavo, smo anketirali delodajalce in starejše zaposlene. V vzorec so bila vključena podjetja, pri čemer smo se omejili na srednje velika in velika podjetja v Sloveniji glede na določila Zakona o gospodarskih družbah. Za oblikovanje končnega vzorca podjetij smo uporabili enostavno slučajno vzorčenje. Na osnovi naključnega izbora smo v končni vzorec vključili 1.000 podjetij, od katerih se je odzvalo 472 podjetij in 1.086 starejših zaposlenih.

Ugotovili smo, da obstaja statistično značilen pozitiven vpliv ohranjanja delovne sposobnosti starejših zaposlenih na njihovo delovno zavzetost v srednje velikih in velikih podjetij v Sloveniji. Z oblikovanjem ustreznega delovnega okolja za starejše zaposlene, lahko podjetja dosežejo znaten dvig delovne zavzetosti starejših ter prispevajo k izboljšanju upravljanja starejših zaposlenih.

Ključne besede: *Starejši zaposleni, ohranjanja delovne sposobnosti starejših zaposlenih, delovna zavzetost*

Abstract: *In the context of demographic changes and active ageing at the workplace, the management of older persons contributes to the creation of new perspectives on the field of human resource management. The ageing of the workforce is crucial for future economic growth, competitiveness and performance, which will increasingly depend on how effectively employers will be able to effeciently employ the capabilities of the older employees. The management of older employees is a developing branch in the field of human resource management and, in the future, it will offer a number of solutions and concepts on how to solve the problems of older employees in companies. Today, the diversity of the workforce is considered an important basis for successful companies. Therefore, the age diversity in companies needs to be recognised and valued, while at the same time we must be aware that an appropriate environment should be created to respect the diversity of the workforce. The age diversity of employees must become a part of the general strategy of a company for equity and diversity. The main*

[1] Faculty of Economics and Business, University of Maribor, Maribor, Slovenia
[2] Faculty of Economics and Business, University of Maribor, Maribor, Slovenia

aim of the paper is to determine the impact of the preservation of the work ability of older employees on their work engagement in medium-sized and large Slovenian companies.

In the companies that were involved in the research, we surveyed employers and older employees. We focused on medium-sized and large companies in Slovenia, the size of which is defined by the Companies Act. Simple random sampling was used to form a final sample of companies. Based on the random selection, 1,000 companies were included in the final sample, of which 472 companies and 1,086 older employees responded.

Our research revealed that there is a statistically significant positive impact of the preservation of the work ability of older employees on their work engagement in medium-sized and large Slovenian companies. By creating an appropriate working environment for older employees, companies can achieve an important enhancement of the work engagement of older employees and contribute to improving the management of older employees.

Keywords: *Older employees, preservation of the work ability of older employees, work engagement of older employees.*

---

1. UVOD

Management človeških virov mora odgovarjati na nove izzive notranjega in zunanjega okolja organizacije. V kontekstu demografskih sprememb prav upravljanje starejših pripomore k oblikovanju novih pogledov na celotno področje managementa in je pomemben člen nove managerske paradigme. Na starejše zaposlene se pogosto gleda kot na breme za družbo, pozablja pa se na vire moči, s katerimi starejši bogatijo družbo in druge generacije. Podjetja se še vedno v zadostni meri ne zavedajo pomena upravljanja starosti na delovnem mestu in učinkovitega obvladovanja problemov, ki spremljajo staranje zaposlenih. Prvi korak k ustreznemu upravljanju starejših zaposlenih je oblikovati ustrezno delovno okolje in ohranjanje njihove delovne sposobnosti, ki narekuje uspešen rezultat staranja za zaposlene ter s tem doseganje ciljev, uspešnosti in konkurenčnosti podjetja. Doseganje navedenega pa podjetje lahko uresniči z delovno zavzetostjo zaposlenih, saj ti čutijo globoko povezanost s podjetjem, ga podpirajo in se zanj zavzemajo.

Staranje in krčenje delovne sile v Evropski uniji zahteva nov pristop k upravljanju starejših tako na nivoju delovnega mesta kot na ravni ekonomskih in socialnih politik držav članic. Tudi [26] ter [24] trdijo, da se evropski trg dela sooča z doslej največjim izzivom: po stoletjih bogate rasti prebivalstva so evropske države prišle v fazo, v kateri je rast prebivalstva upadla. Zato je treba oblikovati potrebne ukrepe za udejanjanje paradigme aktivnega staranja, njihovo kombiniranje in usklajevanje, kar imenujemo upravljanje starejših. Aktivno staranje ustvarja novo etično dilemo med pravicami zaposlenega in delodajalca ter vedno večje potrebe v družbi za podporo naraščajočega števila starejših [28], [19]. Ugodno delovno okolje vpliva na način življenja oziroma življenjski stil zaposlenih, medsebojno sodelovanje, delovno zavzetost, zdravje, dobro počutje in produktivnost na delovnem mestu [24].

Vpliv staranja zaposlenih na njihovo delovno zavzetost je močno odvisen od posameznega delovnega mesta in konkretnega dela, ki ga zaposleni opravlja v organizaciji, kar pomeni, da bodo podjetja morala nakloniti več pozornosti oblikovanju novega delovnega okolja, kar prispeva k pozitivnemu delovanju starostno raznolikih zaposlenih na vseh področjih [10]. Dejstvo je, da delodajalci običajno povezujejo starejše zaposlene predvsem z nizko produktivnostjo, ampak produktivnost naj bi tudi bila bolj odvisna od kombinacij dela in kapitala v produkcijskem procesu kot od osebnih

značilnosti zaposlenih [8]. Avtor [34] prav tako trdi, da uspešnost na delovnem mestu lahko upada s starostjo, vendar ne pri vseh nalogah in še posebno ne pri poklicih, kjer so pomembne sposobnosti, ki z leti ne upadajo, zato je pomembno, da so naloge in delovno mesto prilagojeni starejšemu posamezniku. Prav tako pa je po avtorju [31] treba upoštevati, da je prilagodljivost starejših v organizaciji, vključno z njihovo delovno zmožnostjo, bolj kot s starostjo, pogojena z njihovim delovnim okoljem in zmožnostmi učenja. Avtorji [29] in [2] navajajo, da je pomembna naloga najvišjega vodstva skrb za delovno zavzetost zaposlenih in upoštevanje dejavnikov, s katerimi vplivajo na zavzetost zaposlenih in s tem spodbujajo zaposlene, da se izboljša učinkovitost njihovih nalog in poveča stopnja njihove delovne uspešnosti, kar prispeva k razvoju, rasti, uspešnosti, inovativnosti in konkurenčnosti podjetja. [28] dodaja, da je vlaganje v razvoj zaposlenih ključnega pomena za organizacijo in njene poslovne rezultate.

Glavni cilj prispevka je ugotoviti vpliv ohranjanja delovne sposobnosti starejših zaposlenih na delovno zavzetost v slovenskih srednje-velikih in velikih podjetjih.

V poglavju 2 predstavljamo teoretična izhodišča o upravljanju starejših zaposlenih, ohranjanju delovne sposobnosti starejših zaposlenih, pomen delovne zavzetosti starejših zaposlenih ter na tej osnovi formulirano raziskovalno domnevo raziskave. V nadaljevanju predstavljamo opravljeno empirično analizo ter rezultate preverjanja zastavljene domneve. V zaključku podajamo sintezo ugotovitev, možnosti nadaljnjih raziskav ter pomembnost rezultatov za poslovno prakso.

2. PREGLED TEORETIČNIH SPOZNANJ

2.1. Pomen upravljanja starejših zaposlenih

Staranje delovne sile je izziv, ki kot celota vpliva tako na posamezne organizacije kot na gospodarstvo. Upravljanje starejših zaposlenih predstavlja ustvarjanje delovnih pogojev, ki omogočajo vsakemu posamezniku biti produktiven do konca svoje poklicne poti [4] in uspešno upokojitev [15]. Razumevanje različnih vrednot, potreb in želja starostno raznolikih zaposlenih, zavedanje pomena ustreznih delovnih pogojev za vse generacije ter zaposlovanje in zadržanje starejših zaposlenih, so ključnega pomena za upravljanje človeških virov [33].

Avtorji [25], [12] opredeljujejo upravljanje starejših kot koncept ukrepov in strategij za upravljanje in obvladovanje starosti in staranja, načrtovanje in udejanjanje strategije aktivnega staranja na ravni organizacije s poudarkom na zadržanju starejših v delovnem procesu in podaljševanju njihovega aktivnega življenja, prav tako zajema del managementa človeških virov in vpeljavo novih ukrepov, ki se spreminjajo pod vplivom procesa staranja ali drugih dejavnikov, povezanih s starostjo. Uspešno staranje zaposlenih v delovnem okolju je bistveno povezano z delovno zavzetostjo.

Temeljna cilja upravljanja starejših na organizacijski ravni sta izboljšanje delovne zmožnosti in zaposljivosti starejših zaposlenih z razvijanjem človeških virov in ustreznim prilagajanjem delovnega okolja ter prav tako spodbujanje želje in pripravljenosti starejših zaposlenih za podaljšanje obdobja zaposlitve [19].

2.2. Ohranjanje delovne sposobnosti starejših zaposlenih v podjetju

Ena izmed najpomembnejših strategij zadržanja starejših zaposlenih so ponujene prožne delovne prakse, ki so sprejemljive tako za posameznika kot za organizacijo, ki na ta način zadovolji potrebe

po delu [28]. Cilj prožnih delovnih praks je boljše usklajevanje delovnega časa s potrebami organizacije in hkrati boljše prilagajanje dela osebnim interesom zaposlenih, kar pomeni uravnoteženje dela in življenja [25]. [6] pojasnjuje, da se je zmanjšanje delovne obveznosti v obliki delovnih ur pokazalo kot najbolj želena oblika prožnega dela. [19] povzema raziskavo o delovni sposobnosti zaposlenih in pojasnjuje, da je delovna sposobnost večja pri tistih starejših zaposlenih, ki so poročali o izboljšavah v organizaciji, boljših delovnih ukrepih in boljšem odnosu z nadrejenim. Delovna sposobnost starejših je bila za 3,6-krat večja kot pri tistih, ki so bili nezadovoljni z delovnim okoljem in nadrejenimi. [25] ter [24] navajajo še nekaj primerov, ki dodatno povečujejo prožnost in s tem ohranjajo delovno sposobnost zaposlenih:

- ukrepi zmanjšanja delovnih ur – tedensko ali mesečno,
- posebne oblike rotiranja delovnih mest,
- delo v starostno mešanih skupinah,
- vpeljava mentorstva – delovna mesta, ki združujejo starejše in mlajše zaposlene,
- omejitev trajanja zaposlitve na posebno stresnih delovnih mestih,
- oprostitev dela v izmenah, nočnega dela, nadurnega dela, težkih fizičnih obremenitev, odmori, namenjeni zdravstveni preventivi.

Kako uspešno v praksi zaživijo prožne oblike dela in ohranjanje delovne sposobnosti starejših zaposlenih, pa je odvisno od možnosti in pripravljenosti delodajalca, da jih sploh ponuja in v kolikšni meri jih ponuja [23]. [19] meni, da mora biti delo v organizaciji vedno bolj privlačno in delovno okolje zelo dobro, saj dobro delovno okolje spodbuja delovno sposobnost zaposlenih, povečuje njihovo produktivnost in je pomemben tekmec v primerjavi z drugimi podjetji. Aktivna vloga delodajalcev ali vodij pri spreminjanju delovnega okolja za starejše zaposlene je bistvenega pomena. Za razvoj ugodnega in uspešnega delovnega okolja za vse zaposlene potrebujejo podjetja »starostno upravljanje«.

Preoblikovanje individualnih delovnih nalog glede na prednosti, potrebe in zmožnosti starejših zaposlenih je bistveno za zagotavljanje delovne sposobnosti, dobrega počutja in produktivnosti zaposlenih. Primeri starosti prijaznih ukrepov vključujejo zmanjšanje telesne obremenitve, uvedbo kratkih odmorov med delovnimi postopki in upoštevanje zdravstvenih tveganj pri načrtovanju izmenskega dela in prožnih delovnih ureditev. Po drugi strani je treba izkoristiti prednosti starejših delavcev. Nove potrebe in načine preoblikovanja dela je najlažje opredeliti tako, da se starejše zaposlene vpraša, kako bi želeli spremeniti in izboljšati svoje delo. Druga koristna možnost je porazdelitev delovnih zadolžitev med mlajše in starejše zaposlene, s čimer se izkoristijo njihove različne prednosti [20].

2.3. Pomen delovne zavzetosti starejših zaposlenih

[17] opredeljuje zavzetost kot psihološko stanje in vedenjski izid, ki vodi k večji uspešnosti. Zavzeti zaposleni govorijo pozitivno o organizaciji in zaposlenih, imajo intenziven občutek pripadnosti in želijo biti del organizacije ter so motivirani in delujejo v smeri uspeha celotne organizacije.

Oblikovanje ustreznega delovnega okolja in doseganje zavzetosti starejših zaposlenih na delovnem mestu je zelo pomembno za uspešno poslovanje podjetja. Vodje se morajo zavedati pomena delovne zavzetosti za svoje zaposlene in poiskati načine za starostno raznolike zaposlene, ki prispevajo k zavzetosti na delovnem mestu skozi različna starostna obdobja [37]. [1] pojasnjuje, da se delovna zavzetost zaposlenih spreminja skozi različna starostna obdobja.

2.4. Vpliv ohranjanja delovne sposobnosti starejših zaposlenih na njihovo delovno zavzetost

Pomembna naloga vodstva je skrb za delovno zavzetost zaposlenih. Vodstvo mora upoštevati dejavnike, s katerimi lahko vpliva na delovno zavzetost svojih zaposlenih. Hkrati pa s tem spodbuja zaposlene, da se izboljšajo njihovi delovni rezultati in poveča stopnja njihove delovne uspešnosti, kar prispeva k razvoju, rasti, uspešnosti, inovativnosti in konkurenčnosti podjetja [29], [32], [2]. Ustrezno delovno okolje s katerim vodstvo teži k ohranjanju delovne sposobnosti starejših zaposlenih, je bistvenega pomena za delovno zavzetost starejših zaposlenih. Vodje imajo največji vpliv na raven delovne zavzetosti zaposlenih. Problem nezavzetosti zaposlenih se v prvi vrsti nahaja v odnosu vodij do zaposlenih. Da bi lahko vodje od vsakega zaposlenega pridobili največ, morajo poznati dejavnike, ki vplivajo na njihovo zavzetost za delo [32]. [22] meni, da bi morala podjetja dati več poudarka na upravljanje človeških virov. Za doseganje zavzetosti zaposlenih se od vodij pričakuje odgovornost, da morajo upoštevati dejavnike zadovoljstva pri delu, vključno z delovnimi razmerami, možnostjo soodločanja o načinu in razporedu dela, ter uporabljati ustrezno komuniciranje z zaposlenimi. K navedenemu še [36] dodajata, da je potrebna sprememba odnosa znotraj organizacij do starejših zaposlenih, saj v primeru, ko so zaposleni nezadovoljni na delovnem mestu in z vodstvom, to vpliva na manjšo zavzetost ali nezavzetost pri delu, manjšo predanost organizaciji, motivacijo in slabše delovne rezultate.

Pomembno je ustvariti takšno delovno okolje, v katerem se bodo starejši zaposleni pri svojem delu dobro počutili. Delovna zavzetost zaposlenih se namreč okrepi takrat, ko se zaposleni pri svojem delu dobro počutijo, in obratno, zavzetost zaposlenih upade takrat, ko je stopnja dobrega počutja pri zaposlenih nizka [30]. Pri ustvarjanju ugodnega delovnega okolja za starejše zaposlene in s tem krepitve delovne zavzetosti je potrebno nameniti pozornost ohranjanju delovne sposobnosti starejših na delovnem mestu [21].

Tako [16] ter [27] pojasnjujejo, da imajo tisti zaposleni, ki so jih ponujene možnosti prožnega dela, višjo stopnjo zavzetosti na delovnem mestu. Za nekatere zaposlene sta priložnost in možnost prožnega dela manj stresni ali naporni ter pozitivno povezani z organizacijsko zavzetostjo. Starejši zaposleni iščejo delo, ki krepi njihovo identiteto, omogoča možnost prenosa njihovega znanja in izkušenj ter seveda možnost, da pri svojem delu uporabijo obstoječe znanje, spretnosti in sposobnosti. Prav tako avtorji pojasnjujejo, da so prilagodljive oziroma prožne oblike delovnih mest prioriteta za starejše zaposlene in ključne za njihovo nadaljnje sodelovanje v organizaciji. Management človeških virov mora skrbeti za ustrezno organizacijsko podporo vsem zaposlenim, saj v nasprotnem primeru prihaja do nezavzetosti zaposlenih na delovnem mestu.

Na osnovi teoretičnih izhodišč smo oblikovali naslednjo raziskovalno domnevo:

H1: *Ohranjanje delovne sposobnosti starejših zaposlenih pozitivno vpliva na njihovo delovno zavzetost v slovenskih podjetjih*

3. PODATKI IN UPORABLJENA METODOLOGIJA

3.1. Oblikovanje vzorca

V podjetjih, ki so bila vključena v raziskavo, smo anketirali delodajalce in starejše zaposlene. V vzorec so bila vključena podjetja, pri čemer smo se omejili na srednje velika in velika podjetja v Sloveniji, po določilih Zakona o gospodarskih družbah. Razlog, zakaj smo se omejili na velika

in srednje velika podjetij, je naslednji: predpostavili smo, da mala in mikro podjetja nimajo razvitega sistematičnega managementa človeških virov [18], oziroma ga imajo razvitega v mnogo manjši meri. Na osnovi naključnega izbora smo v končni vzorec vključili 1.000 podjetij. V glavni raziskavi je sodelovalo 472 podjetij oz. delodajalcev ter 1.086 starejših zaposlenih. Stopnja odzivnosti znaša 47,2 %. V raziskavi največji delež (51,9 %) predstavljajo velika podjetja. Srednje velikih podjetij je 48,1 %. Na osnovi Standardne klasifikacije podjetij po dejavnosti Republike Slovenije je v raziskavi sodelovalo največ respondentov (delodajalcev), ki opravljajo delo v predelovalnih dejavnostih (30,7 %). Nato sledijo trgovina, vzdrževanje in popravila motornih vozil (16,9 %), strokovne, znanstvene in tehnične dejavnosti (10,2 %), finančne in zavarovalniške dejavnosti (10,0 %), informacijske in komunikacijske dejavnosti (7,8 %), gradbeništvo (4,7 %), druge raznovrstne poslovne dejavnosti (3,4 %), poslovanje z nepremičninami (3,2 %), zdravstveno in socialno varstvo (3,2 %), gostinstvo (2,5 %), oskrba z električno energijo, plinom in paro (2,3 %), promet in skladiščenje (2,1 %), kmetijstvo in lov, gozdarstvo, ribištvo (1,3 %), oskrba z vodo, ravnanje z odplakami in odpadki, saniranje okolja (0,8 %), rudarstvo (0,4 %) in druge dejavnosti (0,4 %). Iz strukture starejših zaposlenih po starosti izhaja, da je v raziskavi sodelovalo 41,8 % starejših zaposlenih, starih od 56 do 61 let, sledijo zaposleni, stari od 50 do 55 let (38,4 %), in zaposleni, stari od 62 do 67 let (19,3 %). Najnižji odstotkovni delež predstavljajo starejši zaposleni, ki so stari več kot 68 let (0,6 %).

3.2. Raziskovalni instrument

Za raziskovalni instrument smo uporabili anketni vprašalnik. Vprašalnik vsebuje vprašanja zaprtega tipa. Uporabljena je 5-stopenjska Likertova lestvica, kjer so se anketirani opredelili pri navedenih trditvah na večstopenjski lestvici in glede na izbrano vrednost izrazili svoje strinjanje/nestrinjanje od 1 – povsem se ne strinjam do 5 – povsem se strinjam. Ohranjanje delovne sposobnosti starejših zaposlenih temelji na raziskovanjih naslednjih avtorjev: [33]; [7]; [3]. Konstrukt zavzetost starejših zaposlenih temelji na raziskovanjih naslednjih avtorjev: [5]; [13]; [14].

3.3. Metodologija

Za oblikovanje konstruktov za ohranjanje delovne sposobnosti in za delovno zavzetost zaposlnih, smo uporabili faktorsko analizo. Primernost spremenljivk za postopek faktorske analize smo preverili s pregledom Bartlettovega testa sferičnosti in Kaiser-Meyer-Olkinove mere vzorčne ustreznosti (KMO), ki temelji na primerjavi velikosti korelacijskih in parcialnih korelacijskih koeficientov [35]. Zanesljivost merjenja raziskave smo preverjali s koeficientom Chronbachova α [9]. Na osnovi rezultatov faktorske analize smo izločili tiste spremenljivke, katerih komunalitete so bile nižje od 0,4 [11] in uporabili pravokotno rotacijo Varimax. Dobljene faktorske vrednosti smo shranili in tako kreirali nove večdimenzionalne spremenljivke (faktorje oziroma konstrukte). Tako smo namesto velikega števila prvotnih spremenljivk (trditev) uporabili manjše število novih spremenljivk (faktorjev).

Na osnovi pridobljenih novih faktorjev smo izvedli enostavno linearno regresijsko analizo. Z enostavno linearno regresijsko analizo smo preverili vpliv faktorja, kateri je bil v vlogi neodvisne spremenljivke (ohranjanje delovne sposobnosti starejših zaposlenih), na faktor v vlogi odvisne spremenljivke (delovna zavzetost starejših zaposlenih).

4. REZULTATI

4.1. Rezultati faktorske analize

4.1.1. Rezultati faktorske analize za ohranjanje delovne sposobnosti starejših zaposlenih

Konstrukt ohranjanje delovne sposobnosti starejših zaposlenih smo v merskem instrumentu merili z enajstimi trditvami. V tabeli 1 predstavljamo KMO in rezultate Bartlettovega testa sferičnosti za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih.

Tabela 1: KMO in Bartlettov test sferičnosti za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih

KMO		0,909
Bartlettov test sferičnosti	Približen hi-kvadrat	4.354,783
	df	55
	p	0,000

V tabeli 1 KMO (0,909) in stopnja značilnosti Bartlettovega testa ($p < 0{,}001$) kažeta, da so spremenljivke – posamezne dimenzije večdimenzionalne spremenljivke ohranjanje delovne sposobnosti starejših zaposlenih med seboj korelirane in zato primerne za uporabo faktorske analize.

V nadaljevanju smo posamezne trditve proučevali glede na vrednost komunalitet - vrednost najmanj +/– 0,40 in nato še glede faktorskih uteži, kjer smo upoštevali minimalno utež 0,40 [11] (Tabela 2).

Tabela 2: Komunalitete za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih

Spremenljivke	**Komunalitete**
V podjetju spodbujamo aktivno staranje.	0,746
Nudimo enake možnosti za vse zaposlene, ne glede na starost.	0,478
Spodbujamo družbe vseh starosti z večanjem solidarnosti med generacijami.	0,738
Priznavamo vrednosti in identitete starejših ter njihov prispevek k družbi.	0,751
Zaposleni imajo možnost, da sodelujejo v različnih delovnih skupinah (medgeneracijsko sodelovanje).	0,543
Skrbimo za varnost in zdravje pri delu starejših.	0,586
Skrbimo za pravilno delovno obremenitev starejših zaposlenih.	0,657
Usklajujemo zahteve delovnega mesta s sposobnostmi in zmožnostmi starejših zaposlenih.	0,677
Uveljavljamo prijazen delovni čas (fleksibilen delovni čas).	0,660
V podjetju prilagodimo delovno mesto po meri posameznika.	0,471
Starejšim zaposlenim nudimo možnost izobraževanja, usposabljanja.	0,556

Vrednosti vseh komunalitet v tabeli 2 za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih so višje od 0,40, zato nismo izločili nobene spremenljivke, saj vse ustrezajo kriteriju. V naslednji tabeli 3 prikazujemo vse glavne komponente za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih.

Tabela 3: Celotna pojasnjena varianca za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih

Komponente	**Začetne lastne vrednosti**		
	Skupaj	**% variance**	**Kumulativni %**
1	6,862	62,379	62,379
2	0,910	8,273	70,652
3	0,777	7,064	77,716
4	0,644	5,853	83,569
5	0,454	4,131	87,700
6	0,356	3,240	90,939
7	0,325	2,958	93,897
8	0,255	2,321	96,218
9	0,187	1,703	97,922
10	0,157	1,430	99,352
11	0,071	0,648	100,000

Oblikovan prvi faktor v tabeli 3 pojasnjuje 62,4 % variabilnosti vseh izhodiščnih merjenih spremenljivk, s čimer smo zadostili tudi kriteriju glede minimalnega odstotka pojasnjene variabilnosti (vsaj 60 %). V tabeli 4 še prikazujemo faktorske uteži.

Tabela 4: Faktorske uteži za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih

Spremenljivke	**Faktorske uteži**
	Ohranjanje delovne sposobnosti starejših zaposlenih
Priznavamo vrednosti in identitete starejših ter njihov prispevek k družbi.	0,867
V podjetju spodbujamo aktivno staranje.	0,864
Spodbujamo družbe vseh starosti z večanjem solidarnosti med generacijami.	0,859
Usklajujemo zahteve delovnega mesta s sposobnostmi in zmožnostmi starejših zaposlenih.	0,823
Uveljavljamo prijazen delovni čas (fleksibilen delovni čas).	0,812
Skrbimo za pravilno delovno obremenitev starejših zaposlenih.	0,810
Skrbimo za varnost in zdravje pri delu starejših.	0,766
Starejšim zaposlenim nudimo možnost izobraževanja, usposabljanja.	0,746
Zaposleni imajo možnost, da sodelujejo v različnih delovnih skupinah (medgeneracijsko sodelovanje).	0,737
Nudimo enake možnosti za vse zaposlene, ne glede na starost.	0,691
V podjetju prilagodimo delovno mesto po meri posameznika.	0,687

Tabela 4 prikazuje, da so vse faktorske uteži višje od 0,60. Razvidno je, da ima pri ohranjanju delovnih sposobnosti starejših zaposlenih najpomembnejšo vlogo priznavanje vrednosti in identitete starejših ter njihovega prispevka k družbi.

V tabeli 5 prestavljamo vrednost Cronbachove alfe za faktor ohranjanje delovne sposobnosti starejših zaposlenih.

Tabela 5: Statistika zanesljivosti za konstrukt ohranjanje delovne sposobnosti starejših zaposlenih

Cronbachova alfa	Število vključenih spremenljivk
0,936	11

Vrednost Cronbachove alfe (0,936) v tabeli 5 kaže na zgledno zanesljivost merjenja, zato lahko rečemo, da je faktor ohranjanje delovne sposobnosti starejših zaposlenih zgledne zanesljivosti.

4.1.2. Rezultati faktorske analize za delovno zavzetost starejših zaposlenih

Konstrukt delovna zavzetost smo v merskem instrumentu merili z dvanajstimi trditvami. V Tabeli 6 predstavljamo KMO in rezultate Bartlettovega testa sferičnosti za konstrukt delovna zavzetost.

Tabela 6: KMO in Bartlettov test sferičnosti za konstrukt delovna zavzetost

KMO		0,961
Bartlettov test sferičnosti	Pribl. hi-kvadrat	21971,451
	df	66
	p	0,000

V tabeli 6 KMO (0,961) in stopnja značilnosti Bartlettovega testa ($p < 0,05$) kažeta, da so tudi v tem primeru spremenljivke – posamezne dimenzije večdimenzionalne spremenljivke zavzetost starejših zaposlenih, med seboj korelirane in zato primerne za uporabo faktorske analize. V Tabeli 7 so prikazane komunalitete za faktor delovna zavzetost.

Tabela 7: Komunalitete za faktor delovna zavzetost

Spremenljivke	**Komunalitete**
Svoje delo opravljam s strastjo.	0,807
Zavzet/-a sem za kakovostno opravljanje svojega dela.	0,815
Zavzet/-a sem za doseganje uspešnih rezultatov podjetja.	0,807
Čutim povezanost s podjetjem, v katerem sem zaposlena/-a.	0,871
Zavedam se pomena inovacij za naše podjetje in pomagam pri razvoju podjetja.	0,832
Zaupam v svoje sodelavce in vodjo.	0,835
Čutim, da sta moje delo in služba pomembna.	0,873
Ponosen/-na sem, da sem zaposlen/-a v tem podjetju.	0,900
Verjamem v uspešen razvoj in delovanje našega podjetja.	0,863
Podjetja ne bi zapustil/-a, četudi bi se mi ponudila druga možnost zaposlitve.	0,847
Na svojem delovnem mestu se počutim zelo dobro.	0,865
V podjetju se počutim kot »del družine«.	0,876

Vrednosti vseh komunalitet za faktor delovna zavzetost v Tabeli 7 so višje od 0,80. V Tabeli 8 prikazujemo vse glavne komponente za konstrukt delovna zavzetost.

Tabela 8: Celotna pojasnjena varianca za faktor delovna zavzetost

Komponente	**Začetne lastne vrednosti**		
	Skupaj	**% variance**	**Kumulativni %**
1	10,192	84,931	84,931
2	0,580	4,834	89,765
3	0,249	2,074	91,839
4	0,196	1,636	93,476
5	0,157	1,306	94,782
6	0,140	1,170	95,952
7	0,116	0,968	96,920
8	0,104	0,863	97,783
9	0,081	0,671	98,454
10	0,078	0,650	99,105
11	0,064	0,536	99,641
12	0,043	0,359	100,000

Iz Tabele 8 je razvidno, da prvi oblikovan faktor pojasnjuje 84,9 % variabilnosti, s čimer smo zadostili tudi kriteriju glede minimalnega odstotka pojasnjene variabilnosti. V Tabeli 9 prikazujemo faktorske uteži za delovno zavzetost.

Tabela 9: Faktorske uteži za delovno zavzetost

Spremenljivke	**Faktorske uteži**
	Delovna zavzetost
Ponosen/-na sem, da sem zaposlen/-a v tem podjetju.	0,948
V podjetju se počutim kot »del družine«.	0,936
Čutim, da sta moje delo in služba pomembna.	0,934
Čutim povezanost s podjetjem, v katerem sem zaposlen/-a.	0,933
Na svojem delovnem mestu se počutim zelo dobro.	0,930
Verjamem v uspešen razvoj in delovanje našega podjetja.	0,929
Podjetja ne bi zapustil/-a, četudi bi se mi ponudila druga možnost zaposlitve.	0,920
Zaupam v svoje sodelavce in vodjo.	0,914
Zavedam se pomena inovacij za naše podjetje in pomagam pri razvoju podjetja.	0,912
Zavzet/-a sem za kakovostno opravljanje svojega dela.	0,903
Svoje delo opravljam s strastjo.	0,899
Zavzet/-a sem za doseganje uspešnih rezultatov podjetja.	0,898

Tabela 9 prikazuje, da so vse faktorske uteži višje od 0,80. V našem primeru ima pri delovni zavzetosti najpomembnejšo vlogo trditev »ponosen/-na sem, da sem zaposlen/-a v tem podjetju«. V Tabeli 10 prikazujemo še vrednost Cronbachove α za faktor delovna zavzetost.

Tabela 10 kaže, da je vrednost Cronbachove α zgledna (0,982), zato lahko rečemo, da je faktor delovna zavzetost zgledne zanesljivosti.

Tabela 10: Statistika zanesljivosti za faktor delovna zavzetost

Cronbachova α	Število vključenih spremenljivk
0,982	12

4.2. Rezultati regresijske analize

S faktorsko analizo dobljene faktorske točke smo shranili kot novi spremenljivki: ohranjanje delovne sposobnosti starejših zaposlenih in delovna zavzetost starejših zaposlenih. Za preverjanje raziskovalne domneve smo izvedli regresijsko analizo.

Vrednost korelacijskega koeficienta znaša 0,774, kar kaže na to, da med spremenljivkama ohranjanje delovne sposobnosti starejših zaposlenih in delovna zavzetost starejših zaposlenih obstaja močna pozitivna povezanost. Vrednost determinacijskega koeficienta znaša 0,599. Determinacijski koeficient pojasnjuje, da smo 59,9 % celotne variance delovne zavzetosti starejših zaposlenih uspeli pojasniti z vplivom neodvisne spremenljivke (ohranjanje delovne sposobnosti starejših zaposlenih). Zanesljivost dobljene regresijske funkcije smo ugotavljali s F-testom ($F = 1614{,}348$), pri čemer lahko glede na vrednost *p* ($p < 0{,}001$) trdimo, da je ocenjena regresijska funkcija zanesljiva. Tabela 11 prikazuje rezultat preverjanja raziskovalne domneve.

Tabela 11: Rezultat preverjanja raziskovalne domneve

Odvisna sprem.	**Neodvisna sprem.**	**Nestand. koeficient B**	**Nestand. koeficient st. napaka**	**Stand. koeficient β**	**t**	**Sig.**
Delovna zavzetost starejših zaposlenih	Ohranjanje delovne sposobnosti starejših zaposlenih	0,787	0,020	0,774	40,179	0,000

Iz Tabele 11 je razvidno, da je vrednost regresijskega koeficienta pri spremenljivki ohranjanje delovne sposobnosti starejših zaposlenih 0,787 (standardizirani koeficient $\beta = 0{,}774$) in da je značilno različen od 0 ($p < 0{,}001$). Na podlagi izvedene linearne regresije smo tako potrdili raziskovalno domnevo H1: »Ohranjanje delovne sposobnosti starejših zaposlenih pozitivno vpliva na njihovo delovno zavzetost v slovenskih podjetjih«.

6. ZAKLJUČEK IN RAZPRAVA

Na osnovi rezultatov (tabela 11) smo potrdili zastavljeno domnevo, da ohranjanje delovne sposobnosti starejših zaposlenih pozitivno vpliva na njihovo delovno zavzetost v slovenskih podjetjih in ugotovili (tabela 4), da ima pri ohranjanju delovne sposobnosti starejših zaposlenih pomembno vlogo priznavanje vrednosti in identitete starejših ter njihovega prispevka k organizaciji. Ugotovili smo (tabela 9), da ima pri delovni zavzetosti starejših zaposlenih pomembno vlogo dimenzija »ponosen/-na sem, da sem zaposlen/-a v tem podjetju«.
K izboljšanju upravljanja starejših zaposlenih, ki vključuje ohranjanje delovne sposobnosti starejših zaposlenih ter s tem povečanje delovne zavzetosti zaposlenih, prispevajo ustrezni delovni pogoji, ki bi morali biti na voljo v vseh podjetjih. Sem spadajo predvsem prerazporeditev oziroma prilagoditev delovnih mest, prilagoditev urnikov, različne oblike fleksibilnosti na delov-

nem mestu, omogočanje dela od doma, obremenitev starejših zaposlenih z lažjimi delovnimi nalogami. Koristno je, če starejši zaposleni krožijo po podjetju, namesto da dolga leta delajo v isti pisarni in postanejo otopeli. Prav tako je pomembno, da bi podjetja vlagala v ergonomska delovna mesta, saj se starejši pogosto soočajo s slabšanjem vida ali bolečinami v hrbtenici. Predvsem pa jim mora najvišje vodstvo dati vedeti, da cenijo njihove izkušnje in znanje, in jih spodbujati k prenosu le-teh. S tega vidika je učinkovita vpeljava mentorstva, kar bi hkrati starejšemu zaposlenemu omogočilo razbremenitev delovnih obveznosti, večjo fleksibilnost na delovnem mestu ter prenos zakladnice znanja in izkušenj na mlajše zaposlene. Potrebni sta zagotovitev celovitosti in neprekinjenosti upravljanja starejših zaposlenih v podjetjih ter integracija upravljanja starejših zaposlenih z managementom človeških virov, kar mora zajemati sistematično načrtovanje, organiziranje, vodenje in nadzor vseh starostno raznolikih zaposlenih, izvajanje permanentnega izobraževanja in usposabljanja, vzpostavitev sistema nagrajevanja kompetenc zaposlenih in njihove motiviranosti na delovnem mestu, spodbujanje inovativnosti, kreativnosti in ustvarjalnega razmišljanja z zagotavljanjem generiranja idej, predlogov in zamisli, spodbujanje medgeneracijskih timskih pristopov in zagotavljanje sinergičnih učinkov, spodbujanje nehierarhične komunikacije na vseh nivojih podjetja ter skrb za dobro počutje, zadovoljstvo in pripadnost zaposlenih. Prav tako bi bila potrebna permanentno uvajanje ter lasten razvoj sodobnih metod in tehnik upravljanja starejših zaposlenih, spodbujanje vseh starostno raznolikih zaposlenih za sistematično odkrivanje primerov najboljše prakse na področju upravljanja starejših zaposlenih in medgeneracijskega sodelovanja ter prenos teh v delovanje podjetja, zagotavljanje pogojev za lažje in učinkovitejše upravljanje sprememb ter uspešnejše prilagajanje vsem starostno raznolikim zaposlenim, predvsem starejšim zaposlenim, odpravljanje pogleda v preteklost in usmerjanje v prihodnost delovanja celotnega upravljanja starejših zaposlenih ter krepitev njihove delovne zavzetosti.

Priložnosti za prihodnje raziskave vidimo v nadgradnji merskega instrumenta z novimi konstrukti na področju upravljanja starejših zaposlenih in njihove delovne zavzetosti. Starejši zaposleni veljajo za pravo zakladnico znanj in izkušenj. S tega vidika predlagamo izvedbo raziskave na osnovi proučitve, kako in s kakšnimi ukrepi podjetja skrbijo za zadržanje starejših zaposlenih v svojih podjetjih ter s tem povečujejo svojo konkurenčno prednost.

VIRI

[1] Ariani, D. (2013). The relationship between employee engagement, organizational citizenship behavior, and counterproductive work behavior. *International Journal of Business Administration*, 4 (2), str. 46-56.
[2] Armstrong-Stassen, M., Templer, A. (2005). Adapting training for older employees: The Canadian response to an aging workforce. *Journal of Management Development*, 24 (1), str. 57-67.
[3] Armstrong-Stassen, M., Cattaneo, J. (2010). The effect of downsizing on organizational practices targeting older workers. *Journal of Management Development*, 29 (4), str. 344-363.
[4] Best Agers Lighthouses. (2014). *Age management in practice. Recommendations for Employers*. Pridobljeno 10.12.2018 s spletne strani: http://www.nll.se/publika/lg/regio/2014/Best%20Agers%20lighthouses/Recommendations%20for%20Employers.pdf
[5] Bloch, O. (2015). Creating motivation and engagement through values. *Human Resource Management*, 64 (13), str. 14-20.
[6] Brown, S. K. (2005). *Attitudes of individuals 50 and older toward phased retirement*. AARP Public Policy Institute, Knowledge Management. Washington: AARP.

[7] Cheung, F., Wu, A. M. S. (2013). Older workers successful aging and intention to stay. *Journal of Managerial Psychology*, 28 (6), str. 645-660.

[8] Chiesa, R., Toderi, S., Dordoni, P., Henkens, K., Fiabane, E. M. Setti, I. (2016). Older workers: stereotypes and occupational self-efficacy. *Journal of Managerial Psychology*, 31 (7), str. 1152-1166.

[9] Chronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika,* 16, str. 297-334.

[10] Feinsod, R., Davenport, T., Arthurs, R. (2005). *The business case for workers age 50+: Planning for tomorrow's talent needs in today's competitive environment.* AARP knowledge management. Washington: AARP.

[11] Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4 izd.). London: Sage Publications.

[12] Frerichs, F., Lindley, R., Aleksandrowicz, P., Baldauf, B., Galloway, S. (2012). Active ageing in organisations: a case study approach. *International Journal of Manpower*, 33 (6), str. 666-684.

[13] Gallup, G. (2006). *Gallup Study: Engaged Employees Inspire Company Innovation*. Pridobljeno 12.12.2018 s spletne strani: http://missionfacilitators.com/wp-content/uploads/2013/03/Engaged-Employees-Drive-Organizations-Forward.pdf

[14] Gallup, G. (2012). *How employee engagement drives growth*. Pridobljeno dne 11.12.2018 s spletne strani: www.gallup.com/businessjournal/163130/employee-engagement-drives-growth.aspx

[15] Gewolb, S. J. (2015). Working towards successful retirement: older workers and retirees speaking about ageing, change and later life. *Working with Older People*, 19 (1), str. 25-32.

[16] Hennekam, S., Herrbach, O. (2013). HRM practices and low occupational status older workers. *Employee Relations*, 35 (3), str. 339-355.

[17] Hewitt, A. (2014). *Trends in global employee engagement*. Pridobljeno dne 12.12. 2018 s spletne strani: http://www.aon.com/attachments/human-capital-consulting/2014-trends-in-global-employee-engagement-report.pdf

[18] Hornsby, J. S., Kuratko, D. F. (2003). Human Resource Management in U.S. Small Businesses: A Replication and Extension. *Journal of Developmental Entrepreneurship*, 8 (1), str. 73-92.

[19] Ilmarinen, J. (2006). Towards a longer worklife! Ageing and the quality of worklife in the European Union. Pridobljeno dne 14.12.2018 s spletne strani: www.sopol.at/document/download/towards-a-longer-worklife

[20] Ilmarinen, J. (2012). *Promoting active ageing in the workplace. European Agency for safety and health at work.* Pridobljeno dne 11.12.2018 s spletne strani: https://osha.europa.eu/en/tools-and-publications/publications/articles/promoting-active-ageing-in-the-workplace

[21] Kooij, D., de Lange, A., Jansen, P., Dikkers, J. (2008). Older workers motivation to continue to work: five meanings of age. *Journal of Managerial Psychology*, 23 (4), str. 364-394.

[22] Lobnikar, B. (2008). *Osebna zavzetost kot cilj razvoja zaposlenih v bolnišnici*. 11. Jesensko srečanje članov Društva ekonomistov. Laško: Terme Laško.

[23] Loretto, W., Vickerstaff, S., White, P. (2005). *Older workers and options for flexible work.* Pridobljeno dne 12.12.2018 s spletne strani: https://www.researchgate.net/profile/Sarah_Vickerstaff/publication/268000984_Older_Workers_and_Options_for_Flexible_Work/links/546f53520cf24af340c08534/Older-Workers-and-Options-for-Flexible-Work.pdf

[24] Mahon, J. F., Millar, C. C. J. M. (2014). ManAGEment: the challenges of global age diversity for corporations and governments. *Journal of Organizational Change Management*, 27 (4), str. 553-568.

[25] Naegele, G., Walker, A. (2006). *A guide to good practice in age management, European foundation for the improvement of living and working conditions*. Pridobljeno dne 9.12.2018 s spletne strani: http://www.eurofound.europa.eu/publications/htmlfiles/ef05137.htm

[26] Nimwegen, N., Erf, R. (2010). *Demographic trends, socio-economic impacts and policy implications in the European Union*. Amsterdam: KNAW Press.
[27] Piotr, Z. (2009). Human resources practices and work-related attitudes in Polish public administration. *Eastern European Economics*, 47 (5), str. 42-60.
[28] Principi, A. Fabbietti, P. Lamura, G. (2015). Perceived qualities of older workers and age management in companies: Does the age of HR managers matter? *Personnel Review*, 44 (5), str. 801-820.
[29] Rad A. M. M., Yarmohammadian, M. H. (2006). A study of relationship between managers‘ leadership style and employees‘ job satisfaction. *Leadership in Health Services*, 19 (2), str. 11-28.
[30] Robertson, I. T, Cooper, C. L. (2010). Full engagement: the integration of employee engagement and psychological well-being. *Leadership & Organization Development Journal,* 31 (4), str. 324-336.
[31] Rolland, L. (2004). The age chasm: Successfully managing age in your organisation. *Drake whitepaper*, 2 (5), str. 1-32
[32] Sanyal, C., Wilson, D., Sweeney, C., Rachele, J. S., Kaur, S., Yates, C. (2015). Diversity and inclusion depend on effective engagement: It is everyone's business to ensure that progress is maintained. *Human Resource Management International Digest*, 23 (5), str. 21-24.
[33] Shacklock, K., Brunetto, Y. (2011). A model of older workers intentions to continue working. *Personnel Review*, 40 (2), str. 252-274.
[34] Skirbekk, V. (2008). Age and productivity capacity: descriptions, causes and policy options. *Ageing Horizons*, 8, str. 4-12.
[35] Tabacnick, B. G., Fidell, L. S. (2014). *Using Multivariate statistics* (6 izd.). London: Pearson Education Inc.
[36] Yiing, L. H., Ahmad, K. Z. B. (2009). The moderating effects of organizational culture on the relationships between leadership behaviour and organizational commitment and between organizational commitment and job satisfaction and performance. *Leadership & Organization Development Journal*, 30 (1), str. 53-86.
[37] Zaniboni, S. M., Truxillo, D., Fraccaroli, F., McCune, E. A., Bertolino, M. (2014). Who benefits from more tasks? Older versus younger workers. *Journal of Managerial Psychology*, 29 (5), str. 523-508.

VPLIV ORGANIZACIJSKE ZMOŽNOSTI MREŽENJA HITRO RASTOČEGA PODJETJA NA ZAZNANO FINANČNO USPEŠNOST*

THE INFLUENCE OF HIGH-GROWTH ENTERPRISES' NETWORK CAPABILITIES ON PERCEIVED FINANCIAL PERFORMANCE

Blaž Frešer[1]
Karin Širec[2]
Polona Tominc[3]

DOI: https://doi.org/10.31410/EMAN.2019.497

Povzetek: *Hitro rastoča podjetja so se izkazala kot pomemben element za kreiranje delovnih mest, inovativnih idej, družbene blaginje in napredka. Široka spoznanja o pomenu hitro rastočih podjetij izvirajo iz zelo raznolikih raziskav omenjenega področja, ki so primarno usmerjene predvsem v pojasnjevanje pomena podjetništva, značilnosti podjetij (demografskih dejavnikov) in vpliva na kreiranje zaposlovanja ter ustvarjanja ekonomske rasti. V slednje bi lahko uvrstili tudi področje preučevanja finančne uspešnosti hitro rastočih podjetij, saj bo le v primeru, da bo hitro rastoče podjetje finančno uspešno, le-to lahko poslovalo (in zaposlovalo) na za podjetje pričakovani ravni.*

Kot predlaga teorija mreženja, bo organizacijska sposobnost mreženja predstavljala pomemben vidik oblikovanja finančne uspešnosti podjetja. Organizacijska sposobnost mreženja se je namreč izkazala kot pomemben dejavnik, ki lahko vpliva na finančno uspešnost, tako neposredno, kot tudi posredno preko vpliva na dostopnost do finančnih virov in informacij s katerimi podjetje razpolaga.

V prispevku, na vzorcu n=125 hitro rastočih podjetij iz Republike Slovenije, analiziramo vpliv organizacijske zmožnosti mreženja na finančno uspešnost. Raziskava temelji na slučajnem vzorcu hitro rastočih podjetij, ki so bila vsaj enkrat med letoma 2011 in 2016 uvrščena na seznam hitro rastočih podjetij po metodologiji Agencije republike Slovenije za javnopravne evidence in storitve. Rezultati potrjujejo spoznanja preteklih raziskav, čeprav smo z analizo ugotovili zgolj obstoj šibkih, statistično značilnih, pozitivnih vplivov. Rezultati tako nakazujejo na pomen organizacijske zmožnosti mreženja, katerega pomena v ekosistemu hitro rastočih podjetij, zagotovo ne gre zanemariti.

Ključne besede: *Hitro rastoče podjetje; organizacijska zmožnost mreženja, finančna uspešnost*

Abstract: *High-growth enterprises are recognised as an important determinant in enhancing job generation process, innovativeness, social well-being, and general progress. The wide knowledge about the importance of high-growth enterprise's stems from very diverse research in this field. Research primarily focuses on explaining the importance of entrepreneurship skills for growth achievements, on the characteristics of enterprises (demographic factors) and on the importance of the job generation process. To these areas, we could also include the field of studying the financial performance of high-growth enterprise's, as only if enterprises are financially successful, they could operate and employ on the expected levels.*

* Raziskovalni program št. P5-0023 je sofinancirala Javna agencija za raziskovalno dejavnost Republike Slovenije iz državnega proračuna

[1] Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenija

[2] Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenija

[3] Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenija

As suggested by the theory of networking, the network capability will be an important aspect of shaping the enterprises' financial performance. Enterprises' networking capability has proven to be an important influencing factor that can affect financial performance directly, as well as indirectly through the financial resources available or through information that enterprises could acquire and are thus available to them.

In this article, we analyse the impact of the networking capability on the financial performance of high-growth enterprises, where a sample of n=125 high-growth enterprises from Slovenia was used. The research is based on a random sample of high-growth enterprises, which were at least once (among years 2011 and 2016) listed as high-growth according to the methodology prepared and presented by the Agency of the Republic of Slovenia for Public Legal Records and Services. The results confirm the findings of past research, although the analysis showed only the existence of weak statistically significant and positive effects of enterprises' networking capabilities on enterprises' financial performance. The results thus highlight the importance of enterprises' networking capabilities – the importance of which, in the ecosystem of high-growth enterprises, certainly shouldn't be ignored.

Keywords: *High-growth enterprise; network capability; financial performance*

1. UVOD IN TEORETIČNA ZASNOVA

Preučevanje rasti podjetij, ne predstavlja najnovejšega vidika podjetniške teorije, saj ključni začetki segajo v petdeseta leta 20. stoletja, in sicer v leto 1959, iz katerega izhaja teorija Edith Penrose, o rasti podjetja [20]. Teorija predstavlja izhodišča številnim vidikom nadaljnjega raziskovanja podjetniške rasti, saj predstavlja nekatera ključna spoznanja, kot so ločitev organske rasti od rasti z združitvami in prevzemi, ter spoznanje, da lahko pretekla rast omogoča nadaljnje priložnosti za uspešno rast. Prav tako izpostavlja nekatera ključna področja podjetniškega preučevanja, med drugim pomen motivacije za rast ter vlogo podjetnika in njegovih managerskih sposobnosti [11], kamor sodijo tudi sposobnosti organiziranja in upravljanja mrežnih povezav.

Pretekle raziskave izpostavljajo pomen hitro rastočih podjetij za zaposlovanje in družbeno blaginjo [7, 13, 17, 19]. Kljub temu je pri preučevanju hitro rastočih podjetij potrebno opozoriti na izjemno heterogenost raziskav s tega področja. Opredelitve hitro rastočih podjetij se med raziskovalci močno razlikujejo, saj splošno sprejeta definicija teh podjetij ne obstaja [7]. Tako se lahko hitro rastoča podjetja določi glede na odstotek rasti prodaje/zaposlenih, oziroma glede na druge primerjalne kategorije [3, 4]. Lahko pa tudi kot zgornji decil v populaciji podjetji glede na doseženo rast – Davidsson in Delmar [5] sta med hitro rastoča podjetja na primer uvrstila zgornjih 10 % podjetij, ki so v preučevanem obdobju izkazala največjo absolutno rast zaposlenih. Sami smo pri opredelitvi hitro rastočih podjetij izhajali iz metodologije podane s strani Agencije republike Slovenije za javnopravne evidence in storitve (v nadaljevanju AJPES), saj je omogočen javni dostop do evidenc podjetij, uvrščenih v kategorijo hitro rastočih. Metodologija v osnovi predvideva več omejitvenih kriterijev in posledično izločitve nekaterih podjetij. Tako se na seznam ne morejo uvrstiti podjetja, ki med drugim zaposlujejo manj kot 2 zaposlena (če gre za samostojnega podjetnika pa nosilca dejavnosti in vsaj enega zaposlenega), prav tako pa so oblikovana merila glede minimalne višine prihodkov, ustvarjanja pozitivne dodane vrednosti, rasti števila zaposlenih in drugih preučevanih vidikov [1].

Teorija mreženja predlaga, da je uspešnost podjetja povezana s sposobnostjo (ključnih odgovornih oseb v podjetju) pridobiti dostop do resursov, kar se omogoči tudi s pomočjo mreženja. Pretekle raziskave izpostavljajo predvsem pozitivni vpliv med mrežnimi povezavami, tako glede velikosti, kot tudi kakovosti le-teh in samim uspehom podjetja [8, 16]. V določenih primerih je kljub temu

med obema preučevanima kategorijama lahko zaznati tudi statistično neznačilen vpliv [22]. Mreženje se je v preteklih raziskavah pogosto preučevalo kot dejavnik, ki lahko vpliva na posamezne oblike virov financiranja, saj se je pokazalo, da lahko dolgotrajni stiki, kot posledica mreženja, vplivajo na znižanje cene zunanjih virov financiranja, predvsem bančnih posojil [21]. Mreženje s socialni kapitalom in zaupanjem, ki ga le-ta lahko ustvari, vpliva tudi na odločitve mikro-investitorjev [2], ter na zmožnost pridobivanja virov množičnega financiranja [12]. Družbene vezi prav tako predstavljajo pomemben element, preko katerih lahko posamezniki ali podjetja dostopajo do informacij, saj bodo le-te določale vrsto, kakovost in obliko informacij, do katerih bodo imeli posamezniki (podjetja) dostop [18]. Dostopne informacije bodo namreč pomembne za izbiro oblike financiranja podjetja, prav tako pa bo njihova nedostopnost vplivala na težje pridobivanje virov financiranja, kar se je pokazalo tudi na primeru raziskave izvedene s strani Ogoi [15]. Omenjeno predstavlja pomembno ugotovitev, saj vemo, da je dostopnost finančnih virov eden izmed ključnih dejavnikov razvoja in rasti malih ter srednje velikih (med njimi tudi hitro rastočih) podjetij [9]. Dostopnost informacij vsekakor vpliva na številne druge pomembne strateške odločitve, kar se bo nenazadnje izrazilo v finančni uspešnosti hitro rastočega podjetja.

Na podlagi navedenega smo oblikovali naslednjo hipotezo:

H1: *Organizacijska zmožnost mreženja hitro rastočega podjetja pozitivno vpliva na zaznano finančno uspešnost v podjetju.*

2. PODATKOVNE PODLAGE IN METODOLOGIJA

2.1. Opis populacije in vzorca

Populacija hitro rastočih podjetji je oblikovana na osnovi javno objavljenih seznamov hitro rastočih podjetij s strani AJPES-a in zajema 8.194 podjetij. Gre za podjetja, ki so bila vsaj enkrat, med letoma 2011 in 2016, uvrščena v kategorijo hitro rastočih in za katera smo uspeli pridobiti kontaktne podatke. Izmed njih je bilo za telefonsko in računalniško podprto anketiranje, slučajno izbranih 2.788 hitro rastočih podjetij. Pričakovali smo nizko stopnjo odzivnosti, saj so bili ključni respondenti odgovorne osebe v podjetju (lastniki in managerji). Le-ti so namreč najkompetentnejše osebe, ki zaradi pregleda nad celotnim podjetjem lahko podajajo ustrezne ocene in odgovorijo za podjetje kot celoto. Končni vzorec v celoti izpolnjenih anket je znašal n=125. Anektiranje je bilo izvedeno v maju 2018.

V poprečju so hitro rastoča podjetja zajeta v vzorec zaposlovala 24,38 zaposlenega in razpolagala s 4,4 milijoni evrov kapitala. Vzorec je podrobneje predstavljen v tabeli 1, iz katere je razvidno, da je le-ta skladen z obravnavano populacijo hitro rastočih podjetij.

2.2. Opis spremenljivk

Organizacijsko zmožnost mreženja smo merili na sedem stopenjski Likertovi lestvici (1-sploh se ne strinjam; 7-popolnoma se strinjam). Vprašalnik povzet po Mu in Di Benedetto [14] je zajemal naslednje trditve (OZM_v1-11):

OZM_v1: Mrežne partnerje iščemo v lokalnem, regionalnem okolju,
OZM_v2: Mrežne partnerje iščemo v globalnem, mednarodnem okolju,
OZM_v3: Pri iskanju ustreznih mrežnih partnerjev smo široko usmerjeni,

OZM_v4: Če se zdi, da je v odnosu z mrežnimi partnerji kaj narobe, se zelo potrudimo ugotoviti zakaj je temu tako,
OZM_v5: Če imamo z mrežnim partnerjem dober odnos, skušamo razumeti, zakaj je temu tako,
OZM_v6: Nenehno analiziramo in ocenjujemo odnose z mrežnimi partnerji, da se lahko ustrezno prilagodimo,
OZM_v7: Del naše strategije je dinamično povezovanje in izkoriščanje mrežnih povezav v poslovnem procesu,
OZM_v8: Ko je potrebno, lahko poiščemo mrežne partnerje na katere se lahko zanesemo,
OZM_v9: Mrežnim partnerjem smo pravočasno na voljo, kadar nas potrebujejo,
OZM_v10: Od mrežnih partnerjev pravočasno prejmemo ustrezno pomoč, kadar jo potrebujemo,
OZM_v11: Naši mrežni partnerji nas lahko napotijo na tretjo osebo, ki bi nam lahko pomagala, če nam sami ne morejo nuditi neposredne pomoči.

Zaznano finančno uspešnost smo merili na sedem stopenjski Likertovi lestvici kjer so respondenti podali strinjanje (1-sploh se ne strinjam; 7-popolnoma se strinjam) s trditvijo *V primerjavi z neposredno konkurenčnimi podjetij menimo, da naše podjetje izkazuje boljši/o* (FU_{1-5}):

FU_1: Čisti dobiček,
FU_2: ROE – donos na kapital (prihodek pred obdavčitvijo\povprečna vrednost kapitala),
FU_3: ROA – donos na sredstva (prihodek pred obdavčitvijo\povprečna aktiva),
FU_4: Odstotek rasti prihodkov (prihodki tekočega leta\prihodki preteklega leta),
FU_5: Dodano vrednost na zaposlenega.

Tabela 1: Predstavitev vzorca raziskave (vir: [1] in lastni izračuni).

Kontrolna spremenljivka	**fi**	**Fi%**	**Fi% (populacija)**
Velikost podjetja			
Mikro podjetje	96	76,8	79,2*
Malo podjetje	20	16,0	14,3
Srednje veliko podjejte	5	4,0	5,2
Veliko podjetje	4	3,2	1,3
Koliko krat na seznamu			
1	42	33,6	44,4
2	39	31,2	24,8
3	20	16,0	15,1
4	10	8,0	8,1
5	8	6,4	4,6
6	6	4,8	2,9
Leto ustanovitve			
Do 1989	7	5,6	2,7*
1990 do 1994	50	40,0	30,6
1995 do 1999	15	12,0	11,3
2000 do 2004	31	24,8	15,0
2005 do 2009	19	15,2	26,4
2010 in več	3	2,4	14,0

* Opomba: podatek o velikosti in letu ustanovitve se nanaša na populacijo hitro rastočih podjetij po metodologiji AJPES v letu 2016 (obdobje 2012-2016).

2.3. Metodologija

Preveritev oblikovane hipoteze je potekla z uporabo regresijske analize v programu IBM SPSS statistics, verzije 24. Zaradi velikega števila vključenih trditev, smo za spremenljivki organizacijske zmožnosti mreženja in zaznane finančne uspešnosti opravili tudi faktorsko analizo. V sklopu faktorske analize smo izpolnili naslednje pogoje: Kaiser-Mayer-Oklinova statistika (> 0,5), Bertlettov test sferičnosti (p < 0,05), kumunaliteta in faktorska utež (> 0,5), delež pojasnjene variance (vsaj 60 %) in Chronbachova alfa (> 0,6), s čimer smo zadostili predlaganim minimalnim zahtevam [6, 10].

Predpostavljamo, da so izpolnjene tudi vse predpostavke za uporabo regresijske analize.

3. REZULTATI

V tabeli 2 prikazujemo rezultate faktorske analize za organizacijsko zmožnost mreženja in zaznano finančno uspešnost.

Kot je razvidno smo oblikovali en faktor organizacijske zmožnosti mreženja. Iz analize smo izločili dve trditvi, in sicer: OZM_v1 (mrežne partnerje iščemo v lokalnem, regionalnem okolju) na podlagi komunalitete manjše od 0,5; in OZM_v2 (mrežne partnerje iščemo v globalnem, mednarodnem okolju) na podlagi analize Item-Total statistike.

S faktorsko analizo smo prav tako oblikovali en faktor zaznane finančne uspešnosti, ki zajema vseh pet izhodiščnih trditev – iz analize namreč ni bilo potrebno izločiti nobene trditve.

V tabeli 3 prikazujemo rezultate regresijske analize, ki omogočajo preveritev vpliva organizacijske zmožnosti mreženja na zaznano finančno uspešnost hitro rastočih podjetij. Kot je razvidno iz determinacijskega koeficienta, organizacijska zmožnost mreženja pojasni zgolj majhen delež variance zaznane finančne uspešnosti v hitro rastočem podjetju, kar pa je glede na dejstvo, da na finančno uspešnost vplivajo številni drugi dejavniki, seveda tudi pričakovano. Kljub temu je predstavljen regresijski model kot celota ustrezen (F-test, $p \leq 0,05$), kar pomeni, da je regresijsko analizo smiselno uporabiti. Pozitivna vrednost regresijskega koeficienta ($B = 0,172$) nakazuje na obstoj šibkega, a statistično značilnega, pozitivnega vpliva organizacijske zmožnosti mreženja na zaznano finančno uspešnost.

V kolikor ločeno obravnavamo posamezne trditve vključene v faktor organizacijske zmožnosti mreženja (tabela 4) lahko vidimo, da trditvi OZM_v6 (nenehno analiziramo in ocenjujemo odnose z mrežnimi partnerji, da se lahko ustrezno prilagodimo) in OZM_v10 (od mrežnih partnerjev pravočasno prejmemo ustrezno pomoč, kadar jo potrebujemo), statistično značilno in pozitivno vplivata na zaznano finančno uspešnost v hitro rastočem podjetju. Trditev OZM_v11 (naši mrežni partnerji nas lahko napotijo na tretjo osebo, ki bi nam lahko pomagala, če nam sami ne morejo nuditi neposredne pomoči) pa ima statistično značilen negativen vpliv na zaznano finančno uspešnost podjetja.

Na podlagi zgoraj predstavljenih rezultatov lahko hipotezo H1: organizacijska zmožnost mreženja hitro rastočega podjetja pozitivno vpliva na zaznano finančno uspešnost v podjetju, potrdimo (tabela 3) ali delno potrdimo (tabela 4).

Tabela 2: Prikaz rezultatov faktorske analize
(vir: lastna izdelava).

Spremenljivka	**Komu-nalitete**	**Faktor OZM**	**Faktor FU**
(OZM_v3) Pri iskanju ustreznih mrežnih partnerjev smo široko usmerjeni.	0,515	0,718	
(OZM_v4) Če se zdi, da je v odnosu z mrežnimi partnerji kaj narobe, se zelo potrudimo ugotoviti zakaj je temu tako.	0,806	0,898	
(OZM_v5) Če imamo z mrežnim partnerjem dober odnos, skušamo razumeti, zakaj je temu tako.	0,813	0,902	
(OZM_v6) Nenehno analiziramo in ocenjujemo odnose z mrežnimi partnerji, da se lahko ustrezno prilagodimo.	0,692	0,832	
(OZM_v7) Del naše strategije je dinamično povezovanje in izkoriščanje mrežnih povezav v poslovnem procesu.	0,753	0,868	
(OZM_v8) Ko je potrebno, lahko poiščemo mrežne partnerje na katere se lahko zanesemo.	0,809	0,899	
(OZM_v9) Mrežnim partnerjem smo pravočasno na voljo, kadar nas potrebujejo.	0,784	0,885	
(OZM_v10) Od mrežnih partnerjev pravočasno prejmemo ustrezno pomoč, kadar jo potrebujemo.	0,710	0,843	
(OZM_v11) Naši mrežni partnerji nas lahko napotijo na tretjo osebo, ki bi nam lahko pomagala, če nam sami ne morejo nuditi neposredne pomoči.	0,696	0,834	
(FU_v1) Čisti dobiček	0,742		0,861
(FU_v2) ROE – donos na kapital (prihodek pred obdavčitvijo\povprečna vrednost kapitala)	0,833		0,913
(FU_v3) ROA – donos na sredstva (prihodek pred obdavčitvijo\povprečna aktiva)	0,790		0,889
(FU_v4) Odstotek rasti prihodkov (prihodki tekočega leta\prihodki preteklega leta)	0,602		0,776
(FU_v5) Dodano vrednost na zaposlenega	0,651		0,807
Pojasnjena varianca		73,09	72,35
Cronbach alfa		0,952	0,902
Število spremenljivk		9	5
Bartlet test seferičnosti		1 192,24 ($p<0,05$)	507,38 ($p<0,05$)
Kaiser-Meyer-Olkinova statistika (KMO)		0,903	0,798

Tabela 3: Rezultati regresijske analize glede – organizacijska zmožnost mreženja kot faktor
(vir: lastna izdelava).

Odvisna spremenljivka: zaznana finančna uspešnost	**B**	**Standardna napaka (SE B)**	β	**t**	**Statistična značilnost (p)**
Organizacijska zmožnost mreženja	0,172	0,089	0,172	1,940	0,055
Determinacijski koeficient (R^2)	0,030				
F-test	3,764 ($p = 0,055$)				

Tabela 4: Rezultati regresijske analize glede na posamezno trditev (vir: lastna izdelava).

Odvisna spremenljivka: zaznana finančna uspešnost	**B**	**Standardna napaka (SE B)**	β	**t**	**Statistična značilnost (p)**
OZM_v3	-0,043	0,062	-0,084	-0,694	0,489
OZM_v4	0,106	0,118	0,198	0,905	0,367
OZM_v5	-0,129	0,121	-0,234	-1,062	0,291
OZM_v6	0,229	0,107	0,414	2,132	0,035
OZM_v7	-0,049	0,113	-0,085	-0,428	0,669
OZM_v8	0,168	0,117	0,281	1,438	0,153
OZM_v9	-0,168	0,116	-0,274	-1,454	0,149
OZM_v10	0,276	0,113	0,449	2,450	0,016
OZM_v11	-0,285	0,108	-0,472	-2,642	0,009
Determinacijski koeficient (R^2)	0,153				
F-test	2,302 (p = 0,020)				

4. DISKUSIJA IN SKLEPNE UGOTOVITVE

Predstavljeni rezultati podpirajo pretekle ugotovitve, ki so nakazale na pomemben vpliv mreženja na uspešnost podjetja [8, 16]. Mreženje in organizacijska zmožnost mreženja lahko na uspešnost podjetja vplivata tako neposredno, kot tudi posredno, preko dostopnosti do finančnih virov [2, 12, 21] in dostopnosti do informacij s katerimi podjejte razpolaga [15, 18]. Kljub temu, da rezultati podpirajo pretekle ugotovitve, saj smo v članku prikazali pozitiven statistično značilen vpliv organizacijske zmožnosti mreženja na finančno uspešnost, je le-ta vpliv razmeroma šibak. Omenjeno bi lahko podpiralo spoznanja preteklih raziskav, da se pri podrobnejšem preučevanju na primer donosa na kapital (ROE – gre za eno izmed trditev vključenih v faktor zaznane finančne uspešnosti) lahko pojavijo statistično neznačilni ali šibkejši vplivi [22].

Iz obravnave posameznih trditev organizacijske zmožnosti mreženja lahko vidimo, da trditvi OZM_v6 (nenehno analiziramo in ocenjujemo odnose z mrežnimi partnerji, da se lahko ustrezno prilagodimo) in OZM_v10 (od mrežnih partnerjev pravočasno prejmemo ustrezno pomoč, kadar jo potrebujemo) statistično značilno in pozitivno vplivata na zaznano finančno uspešnost hitro rastočega podjetja. Omenjeno predstavlja pomembno ugotovitev, saj izpostavlja vlogo razvitega in analitičnega obravnavanja mrežnih partnerjev, ki lahko hitro rastočemu podjetju tudi sami nudijo vso potrebno pomoč. V nasprotju pa lahko pri trditvi OZM_v11 (naši mrežni partnerji nas lahko napotijo na tretjo osebo, ki bi nam lahko pomagala, če nam sami ne morejo nuditi neposredne pomoči), govorimo o statistično značilno negativnem vplivu na zaznano finančno uspešnost, kar nakazuje, da lahko podjetja pričakujejo večje koristi od neposrednih mrežnih povezav in ne morebitnih posrednih povezav oziroma poznanstev.

Omejitve prispevka so povezane s časovnim vidikom obravnave. Gre za raziskavo, ki je bila izvedena na populaciji hitro rastočih podjetij med letoma 2011 in 2016, ne glede na to v katerem letu in koliko krat so se posamezna podjetja uvrstila na seznam hitro rastočih. Omejitev izhaja tudi iz oblike uporabljenih merskih lestvic. Respondenti so pri odgovarjanju na vprašalnik namreč podajali strinjanje (nestrinjanje) s trditvijo – merili smo torej zaznano organizacijsko sposobnost mreženja in zaznano finančno uspešnost. Uporaba dejanskih podatkov o mrežnih povezavah in o dejanski finančni uspešnosti, bi seveda lahko vodila v drugačne rezultate.

VIRI IN LITERATURA

[1] Agencija Republike Slovenije za javnopravne evidence in storitve (AJPES) (2017). Podatki o hitro rastočih podjetjih. Dostopno na spletnem naslovu: https://www.ajpes.si/Letna_porocila/Informacije/Podatki_po_regijah.

[2] Aggarwal, R., Goodell, W. J., Selleck, J. L. (2015). Lending to women in microfinance: Role of social trust. International Business Review, 24 1), str. 55-65.

[3] Autio, E., Arenius, P., & Wallenius, H. (2000). Economic impact of gazelle firms in Finland. Working Papers Series 2000 (3). Helsinki University of Technology, Institute of Strategy and International Business.

[4] Birch, D. L., Haggerty, A., & Parsons, W. (1995). Who's creating jobs?. Boston: Cognetics Inc.

[5] Davidsson, P., Delmar, F. (2002). High-growth firms and their contribution to employment: the case of Sweden 1987-96. V: Davidsson, P., Delmar, F., & Wiklund, J. (ured.): Entrepreneurship and the Growth of Firms, Edward Elgar.

[6] Field, Andy (2009), Discovering statistics using SPSS, Third edition, London: SAGE Publications Ltd.

[7] Henrekson, M., Johansson, D. (2010). Gazelles as job creators: a survey and interpretation of the evidence. Small Business Econnomics, 35 (2), str. 227-244.

[8] Hoang H, Antoncic B. (2003). Network-based research inentrepreneurship: a critical review. Journal of BusinessVenturing, 18 (2), str. 165–187.

[9] International Finance Corporation (IFC) (2011). SME Finance Policy Guide. Washington: International Finance Corporation. Dostopno na spletnem naslovu: https://www.ifc.org/wps/wcm/connect/f3ef82804a02db409b88fbd1a5d13d27/G20_Policy_Report.pdf?MOD=AJPERES (dostopno dne 13. 11. 2017).

[10] Janssens, Wim, Wijnem, Katrien, De Pelsmacker, Patrick and Van Kenhove, Patrick (2008), Marketing Research with SPSS, Harlow, England: Pearson Education.

[11] Lockett, A., Wiklund, J., Davidsson, P., Grima, S. (2009). Organic and acquisitive growth: re-examining, testing and extending Penrose‘s growth theory. Journal of Management Studies, 48 (1), str. 48-74.

[12] Lukkarinen, A., Terich E. J., Wallenius, H., Wallenius, J. (2016). Success drivers of online equity crowdfunding campaigns. Decision Support Systems, 87, str. 26-38.

[13] Mason, C., Brown, R. (2013). Creating good public policy to support high-growth firms. Small Business Economics, 40 (2), str. 211-225.

[14] Mu, J., Di Benedetto A. (2012). Networking Capability and New Product Development, IEEE transactions on engineering management, 59 (1), str. 4-19.

[15] Ogoi, H. J. (2016). Strategies for Accessing Credit by Small and Medium Enterprises. Walden University. Doktorska disertacija.

[16] Semrau, T., Sigmund, S. (2012). Networking Ability and the Financial Performance of New Ventures: A Mediation Analyis among Younger and More Mature Firms. Strategic Entreprneurship Journal, 6 (4), str. 335-354.

[17] Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. Small Business Economy, 33 (2), str. 141-149.

[18] Shane, Scott (2003), A general theory of entrepreneurship, The Individual-Opportunity Nexus. Cheltenham: Edward Elgar Publishing Limited.

[19] Storey, D. J. (2014). Understanding the Small Business Sector: Reflections and Confessions. V: Braunerhjelm, P. (ured.). 20 Years of Entrepreneurship Research - from small business dynamics to entrepreneurial growth and societal prosperity. Swedish Entrepreneurship Forum, str. 21-33.

[20] Širec, K. (2011). Izzivi in predlog multidimenzionalnega modela proučevanja rasti malih in srednje velikih podjetij. Naše gospodarstvo. 57 (5-6), str. 20-29.

[21] Uzzi, B. (1999). Embeddedness in the making of financial capital: how social relations and networks benefit firms seeking financing. American Sociological Review, 64 (4), str. 481-505.

[22] Watson, J. (2007). Modeling the relationship between networking and firm performance. Journal of Business Venturing, 22 (6), str. 852-874.

RANGIRANJE VISOKOŠKOLSKIH USTANOVA U SISTEMU MENADŽMENTA KVALITETA AHP METODOM PRIMENOM ALATA POSLOVNE INTELIGENCIJE

RANKING OF HIGHER EDUCATION INSTITUTIONS IN QUALITY MANAGEMENT SYSTEM BY AHP METHOD WITH USE OF BUSINESS INTELLIGENCE TOOLS

Nedeljka Živković[1]
Nemanja Deretić[2]

DOI: https://doi.org/10.31410/EMAN.2019.505

Sadržaj: *Tema ovog rada se bazira na činjenici da postupak rangiranja visokoškolskih ustanova zahteva temeljan i sistematičan proces, iz razloga što su visokoškolske ustanove specifične institucije uslužnog karaktera. Evropski sistemi visokog obrazovanja (zemlje potpisnice Bolonjske deklaracije), kao i sve veća konkurencija na tržištu pružanja usluga visokog obrazovanja nameću potrebu rangiranja visokoškolskih ustanova. Rangiranje visokoškolskih ustanova ima za cilj da prepozna kvalitet u funkciji visokog obrazovanja. Problem istraživanja je razmatran i rešavan na osnovu različitih kriterijuma primenom softvera Expert Choice. Primena Analitičko Hijerarhijskog Procesa (AHP) kao sredstva za donošenje odluka u polju visokog obrazovanja je zasnovana na različitim indikatorima, sa uporedivim kriterijumima. U radu je prikazan izbor najbolje alternative i hijerarhijski prikaz nivoa rangiranja. Hijerarhijski prikaz nivoa rangiranja je urađen izdvajanjem značajnijih atributa od manje značajnih u okviru četiri visokoškolske ustanove. U analizu su uključene četiri visoke škole na teritoriji grada Beograda, iz Republike Srbije.*

Ključne reči: *visoko obrazovanje, visokoškolska ustanova, AHP metoda, istraživanje, softver*

Abstract: *This paper is based on the fact that the process of ranking of higher education institutions requires a thorough and a systematic process, because higher education institutions are specific institutions with service character. European systems of higher education (Bologna Declaration countries) as well as increasing competition in the field of higher education services impose the need for ranking of higher education institutions. The aim of ranking of higher education institutions is to recognize the quality in a function of higher education. The research problem was considered and resolved on the base of the various criteria with the use of Expert Choice software. The application of the Analytical Hierarchy Process (AHP) as a tool for decision making in the field of higher education is based on different indicators, with comparable criteria. The paper presents the choice of the best alternative and a hierarchical presentation of the ranking levels. The hierarchical presentation of the ranking levels was made by separating more significant attributes from less significant within the four higher education institutions. The analysis includes four higher education institutions in the territory of the city of Belgrade, from the Republic of Serbia.*

Keywords: *higher education, higher education institution, AHP method, research, software*

---

[1] Akademija poslovnih strukovnih studija, Beograd, Kraljice Marije 73, Srbija
[2] Akademija poslovnih strukovnih studija, Beograd, Kraljice Marije 73, Srbija

1. UVOD

Upoređivanje i merenje organizacionih performansi visokoškolskih ustanova važno je za sve stejkholdere u oblasti visokog obrazovanja. Stejkholderi visokoškolske ustanove podrazumevaju grupacije kao što su: studenti, zaposleni na visokoškolskoj ustanovi, nadležno ministarstvo, srednjoškolska populacija kao i država. Navedeni stejkholderi su pod uticajem ili mogu imati uticaj na rad i funkcionisanje visokoškolske ustanove. Analitičko hijerarhijski proces (AHP) predstavlja alat u analizi odlučivanja koji treba da pruži pomoć donosiocima odluka u rešavanju kompleksnih problema [1]. Tokom prethodnog perioda došlo je do velikih promena u oblasti visokog obrazovanja. Zbog nastalih promena, javlja se potreba vrednovanja i merenja performansi visokoškolskih ustanova prema zadatim kriterijumima koji se sagledavaju. Predmet istraživanja je upoređivanje i merenje performansi visokih škola, odnosno rangiranje koje će omogućiti identifikaciju visoke škole sa najvišim nivoom značajnosti. Uslov da se izvrši rangiranje visokoškolskih ustanova zahteva da visokoškolske ustanove transparentno objavljuje sve podatke od značajnosti. Problem tačnosti ulaznih podataka je značajan za konačnu validnost modela [2]. Ne postoje zvanično publikovane informacije o rangiranju visokoškolskih ustanova u Republici Srbiji, pa tako nisu poznati niti kriterijumi na osnovu kojih bi se izvršilo rangiranje. Toga radi, u ovom radu i istraživanju kriterijumi će biti definisani na osnovu procena, kako bi se odredila odgovarajuća hijerarhijska struktura. U tom smislu, analizom će biti obuhvaćene četiri visoke škole, čiji je osnivač Republika Srbija iz različitih naučnih oblasti. Cilj rada i istraživanja je da se primenom metode AHP kao metode višekriterijumske analize prepozna proces rangiranja visokoškolskih ustanova u našoj zemlji.

U skladu sa zadatim predmetom i ciljem istraživanja, koja se odnosi na analizirani problem odlučivanja, formulisana je hipoteza: H_0: AHP se zasniva na određivanju značajnosti skupa kriterijuma kao model za rangiranje i merenje performansi visokoškolskih ustanova.

2. METODOLOGIJA ISTRAŽIVANJA

Vrednovanje i merenje performansi visokoškolskih ustanova značajno je ne samo zbog direktnih i indirektnih korisnika visokoškolskih ustanova već i zbog pozicije na konkurentnom tržištu u oblasti visokog obrazovanja. Na osnovu pregleda domaće i inostrane literature kao i naučnih i stručnih radova utvrđeno je da gotovo ne postoji broj tema iz ove oblasti. Izuzetno mali broj ovih i sličnih tema odnose se na rangiranje fakulteta i integrisanu primenu metode AHP od kojih nešto značajnije mesto zauzima primena metode analiza obavijanja podataka Data Envelopment Analysis (DEA) u oblasti visokog obrazovanja. Primena Bolonjskog procesa kao i akreditacija privatnih visokoškolskih ustanova postaje sve veći izazov za sve visokoškolske ustanove na teritoriji Republike Srbije. Posledice niskog rangiranja visokoškolske ustanove se ispoljavaju u vidu gubitka akreditacije, prelaska studenata na druge visokoškolske ustanove, smanjenja broja zainteresovanosti srednjoškolske populacije, loše reputacije, itd.

Iako je tokom prethodnog perioda dugo najavljivano da će se izvršiti rangiranje visokoškolskih ustanova u Republici Srbiji, u praksi to ne postoji. Situacija je dosta složenija za oblast visokog školstva u odnosu na fakultete u svetu gde su poznati kriterijumi na osnovu kojih bi se izvršilo rangiranje. Ovi kriterijumi i indikatori se pre svega odnose na broj alumni i nastavnika koji su dobitnici Nobelovih nagrada i Fildsovih medalja i ukupan broj osvojenih nagrada, zatim broj publikovanih radova u Science Citation Index, broj istraživača koji su citirani u vodećim citatnim indeksima Highly Cited Researchers (Thomas Reuters). Pojavom Šangajske liste, (Academic Ranking of World Universities), prvi put u svetskoj praksi je izvršeno rangiranje 500 najuspešnijih univerziteta

[3]. U tom smislu, u oblasti visokog školstva, gde ovi i slični indikatori nisu poznati u ovom istraživanju i radu, kriterijumi će biti dodeljeni na osnovu procene. Takođe, ovo istraživanje i rad neće moći da eliminiše subjektivnu procenu za izbor kriterijuma kako bi se dobila sveobuhvatna slika, kada je u pitanju rangiranje visokih škola. Svrha ovog istraživanja je sagledavanje mogućnosti primene AHP metode višekriterijumske analize u domenu visokog obrazovanja. Naučni i stručni radovi za ovu oblast su veoma oskudni na našim prostorima i toga radi, opredeljenost istraživača bila je da se prepozna i identifikuje proces rangiranja visokoškolskih ustanova na našim prostorima.

Rad je struktuiran na sledeći način: na početku je dat teoretski osvrt na problematiku izrade tematske celine. Zatim je dat opis izabrane metode istraživanja kao i pregled literature koja je povezana vrednovanjem i rangiranjem visokoškolskih ustanova uz mogućnost primene AHP metode. U poslednjem delu rada je na primeru četiri odabrane visoke škole, sa teritorije grada Beograda, prikazano kako se može vršiti rangiranje visokoškolskih ustanova primenom AHP metode.

3. MOGUĆNOSTI PRIMENE METODE AHP U DELATNOSTI VISOKOG OBRAZOVANJA

Delatnost visokog obrazovanja je od posebnog društvenog značaja. Svaka zemlja ima određene specifičnosti vezane za visoko obrazovanje, ali ono što je zajedničko u okviru jedinstvenog sistema obrazovanja su karakteristike koje se odnose na organizaciju, nivo obrazovanja, godine trajanja studija, itd. Kvalitet visokog obrazovanja je od suštinskog značaja za razvoj jedne zemlje, jer visokoškolske ustanove pripremaju stručnjake koji će raditi kao menadžeri u kompanijama i upravljati javnim i privatnim sektorima [4]. Na teritoriji Republike Srbije, na osnovu prikaza Konferencije Akademija strukovnih studija Srbije (KASSS), ima 47 visokih škola čiji je osnivač Republika Srbija. U tabeli 1. dat je prikaz ovih visokih škola po naučnom polju obrazovanja [5].

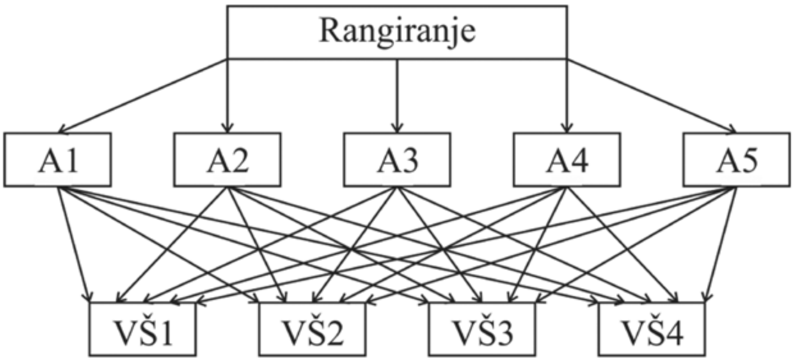
Tabela 1: Broj visokih škola strukovnih studija po naučnim oblastima čiji je osnivač Republika Srbija

Naučno polje	Broj visokih strukovnih škola
Društveno-humanističke nauke	18
Tehničko-tehnološke nauke	26
Medicinske nauke	2
Umetnost	1

Na osnovu podele visokih škola po naučnim oblastima, evidentno je da dominiraju visoke škole tehničko-tehnološkog polja uz napomenu, da su neke visoke škole strukovnih studija registrovane i akreditovane za više naučnih oblasti. Analitički hijerarhijski proces se zasniva na modelu balansa i koristi se za određivanje sveukupne značajnosti [6]. To znači da će se dominiranjem značajnih atributa neki kriterijumi izdvojiti. Metodom AHP mogu se prognozirati i predviđati velike društvene odluke u domenu marketinga, medicine, politike, društva, itd. [7]. Metodom AHP se vrlo uspešno rešava problem odlučivanja. U samoj primeni metode jedan od boljih pokazatelja bi bio da onaj ko procenjuje raspolaže objektivnim podacima, kako se ne bi koristila sopstvena verovanja ili subjektivne informacije. AHP metoda je sistematičan pristup razvijen 1970-ih godina, kada je donošenje odluka bilo zasnovano na intuiciji i dobro definisanim pristupom zasnovanom na matematičkim principima [8]. Na osnovu odabranih kriterijuma za vrednovanje i rangiranje performansi visokih škola u nastavku rada biće prikazana detaljna primena AHP metode u delatnosti visokog školstva.

4. STRUKTUIRANJE METODE AHP I MOGUĆNOST PRIMENE NA VISOKO ŠKOLSTVO

Struktuiranje problema se sastoji od dekomponovanja bilo kog složenog problema odlučivanja u seriju hijerarhija, gde svaki nivo predstavlja manji broj upravljanih metoda [9].
Rangiranje i vrednovanje visokih škola sprovedeno je na primeru četiri visoke škole iz Beograda i to iz sledećih naučnih oblasti: 2 visoke škole strukovnih studija iz polja društveno-humanističkih nauka, 1 iz polja tehničko-tehnoloških nauka i 1 iz polja medicinskih nauka (Slika 1). U analizu visokih škola strukovnih studija će biti uključeni nefinansijski kriterijumi. Kriterijumi za rangiranje i merenje performansi visokih škola izabrani su subjektivno.



Slika 1: AHP struktura rangiranja visokih škola strukovnih studija [10].

AHP struktura prikazuje hijerarhijski prikaz problema izbora najbolje visoke škole strukovnih studija od posmatrane četiri visoke škole. Ulazi na osnovu kojih se vršila procena težina za poređenje parova su kriterijumi i označeni su oznakama A1-A5. S obzirom na neažuriranost i nepostojanost podataka koji bi mogli biti korišćeni u ovom istraživanju, pristupljeno je kvalitativnim i kvantitativnim metodama. Finansijski pokazatelji poslovanja analiziranih visokih škola (dobitak-gubitak), kao i broj upisanih studenata, broj diplomiranih studenata (izlaznost diploma), podaci o istraživačkom radu nastavnog osoblja, alumni članovi, prosečno vreme studiranja, i drugo, kao vrlo značajni podaci o ulazima (i izlazima), zvanično nisu dostupni i onemogućen je direktan pristup tim podacima. Iz tog razloga pristupilo se kombinovanju kvantitativnog i kvalitativnog pristupa u analizi visokih škola.

5. IZBOR KRITERIJUMA I PROCENA RELATIVNIH TEŽINA ZA RANGIRANJE VISOKIH ŠKOLA

Prema [11], obaveza je visokih škola da na svakih najviše tri godine, formiraju izveštaj o samovrednovanju. Formiranje i dostavljanje izveštaja o samovrednovanju prethode postupku akreditacije koje obavlja nadležno telo pod nazivom Komisija za akreditaciju i proveru kvaliteta (KAPK). Prema [12], postupku akreditacije visokoškolskih ustanova i studijskih programa podležu sve visokoškolske ustanove u Republici Srbiji i studijski programi koje izvode. Postupak akreditacije sprovodi se na zahtev ministarstva nadležnog za poslove visokog obrazovanja i osnivača, odnosno same visokoškolske ustanove. Izveštaji sadrže informacije na osnovu kojih se vrši ocena kvaliteta studijskih programa, nastavnog i nenastavnog procesa, kao i sveobuhvatna slika o uslovima rada određene visoke škole. Za posmatrane visoke škole izvršena je analiza izveštaja o samovrednovanju, kao i informatora o radu. Na osnovu uvida u publikovane izveštaje, izvršen je izbor kriterijuma koji su analizirani (Tabela 2).

Tabela 2: Izbor kriterijuma za rangiranje analiziranih visokih škola strukovnih studija

Oznaka kriterijuma	Naziv kriterijuma
A1	Strategija obezbeđenja kvaliteta
A2	Pokrivenost nastavnog procesa
A3	Savremenost studijskih programa
A4	Sredstva rada visoke škole
A5	Tradicija visoke škole

Strategija obezbeđenja kvaliteta podrazumeva unutrašnje mehanizme za obezbeđenje kvaliteta. Publikovana strategija visoke škole treba da sadrži: definisane ciljeve, viziju i misiju, odbor za kvalitet, kurikulum (detaljan opis redovnih i izbornih nastavnih predmeta), publikovanje časopisa, implementaciju Quality Management System (QMS)-a, itd. Pokrivenost nastavnog procesa podrazumeva: broj profesora strukovnih studija, broj predavača kao i broj asistenata i stručnih saradnika u odnosu na broj studenata (akreditacioni broj studenata koji visoka škola upisuje). Savremenost studijskih programa podrazumeva: prikaz specifikacije predmeta, vrste i nivoe studija, status predmeta (obavezni-izborni), cilj predmeta, ishod predmeta, sadržaj predmeta, broj časova aktivne nastave tokom semestra, metode izvođenja nastave, ocene znanja, itd. Sredstva rada visoke škole podrazumevaju: prostorni kapacitet, broj amfiteatara, slušaonica i internet učionica, laboratorija, biblioteku i čitaonicu. Postojanje tradicije visoke škole sagledava istorijat i kontinuitet u radu visoke škole. Procena težinskih vrednosti vrši se na osnovu skale poređenja parova kriterijuma kako bi se dodelila težinska vrednost jednog kriterijuma u odnosu na drugi (Tabele 3.i 4.) [13].

Tabela 3: Skala poređenja

Intenzitet vrednosti	Definicija	Opis
1	Jednaka vrednost	Dve aktivnosti isto doprinose cilju
3	Blaga vrednost jednog u odnosu na drugi kriterijum	Iskustvo i procena umereno favorizuju jednu aktivnost u odnosu na drugu
5	Velika vrednost	Iskustvo i procena izuzetno favorizuju jednu aktivnost u odnosu na drugu
7	Demonstrirana vrednost	Jedna aktivnost se favorizuje i dominira
9	Ekstremna vrednost	Favorizovanje jedne aktivnosti u odnosu na drugu je najvećeg mogućeg reda afirmacije
2, 4, 6, 8	Srednje vrednosti između dve procene	Potreban je kompromis
Reciproteti i vrednosti nenultih brojeva	Ukoliko jedna aktivnost ima jedan od gornjih brojeva (na primer 3) kada se uporedi sa drugom aktivnošću onda druga aktivnost ima recipročnu vrednost 1/3 kada se poredi sa drugom	

Na osnovu hijerarhijske strukture kriterijuma pristupilo se dodeljivanju težinskih koeficijenata i proceni vrednosti značaja na skali poređenja od 1 – 9 za dodeljivanje težinske vrednosti jednog kriterijuma u odnosu na drugi.

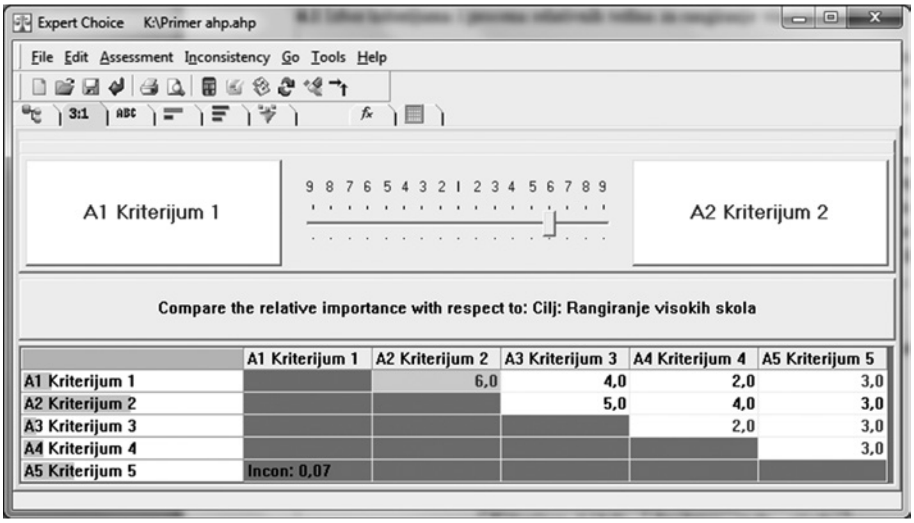
6. REZULTATI PRIMENE AHP METODE

U Tabeli 4 data je matrica poređenja kriterijuma koja sadrži ulaze na osnovu kojih se vršilo rangiranje visokih škola.

Tabela 4: Matrica poređenja kriterijuma AHP modela za ocenu i rangiranje visokih škola

Kriterijumi	A1	A2	A3	A4	A5
A1	1	1\6	4	2	1\3
A2	6	1	5	4	3
A3	1\4	1\5	1	1\2	1\3
A4	1\2	1\4	2	1	1\3
A5	3	1\3	3	3	1

Odgovarajuća matrica upoređivanja po parovima se prevela u određivanje vrednosti. S obzirom da ne postoje zvanično publikovani izveštaji o kriterijumima kako bi se mogle rangirati visoke škole, kao i na neažuriranost podataka, izbor ulaza kao i procena vrednosti relativnog značaja je izvršena na osnovu ulaznih podataka. Jedan od osnovnih razloga za ovakav pristup je nemogućnost dostupnosti podataka za posmatrane visoke škole. Korišćenjem software paketa Expert Choice izračunati su težinski koeficijenti kriterijuma za izbor najbolje visoke škole (Tabela 5.) [14].

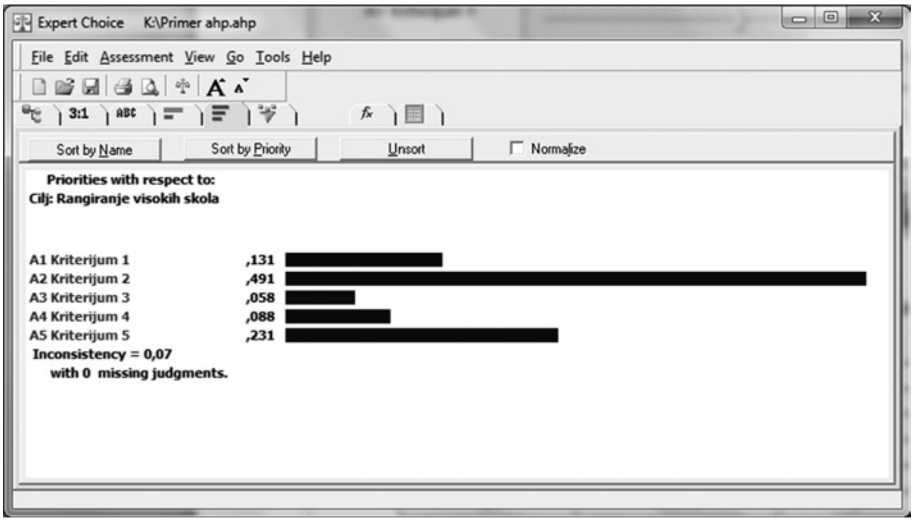


Slika 2: Prikaz unosa podataka u matricu poređenja kriterijuma AHP modela za ocenu i rangiranje visokih škola iz programa Expert Choice

Tabela 5: Težinski koeficijenti i rang kriterijuma AHP modela za ocenu i rangiranje visokih škola

Kriterijumi	Težinski koeficijenti	Rang
A1	0,131	3
A2	0,491	1
A3	0,058	5
A4	0,088	4
A5	0,231	2

Indeks konzistentnosti (CR) iznosi 0,07. Računanje konzistentnosti je veoma bitan korak u primeni AHP metode. Pravilo je da kod izračunavanja konzistentnosti vrednost CR bude manja od 0,1 [15]. Na primeru rangiranja visokih škola vrednost CR je konzistentna i smatra se prihvatljivom.



Slika 3: Grafički prikaz vrednosti težinskih koeficijenata iz programa Expert Choice

U Tabeli 5 može se uočiti da najveći prioritet i rang 1 ima kriterijum (A2), odnosno pokrivenost nastavnog procesa, broj nastavnog osoblja u odnosu na broj studenata (akreditacioni broj studenata). Najmanji rang ima kriterijum i rang 5, odnosno savremenost studijskih programa (A3). Izbor najbolje visoke škole po zadatim kriterijumima se može prikazati u kompletiranoj formi, koju prikazuje software Expert Choice (Tabela 6.)

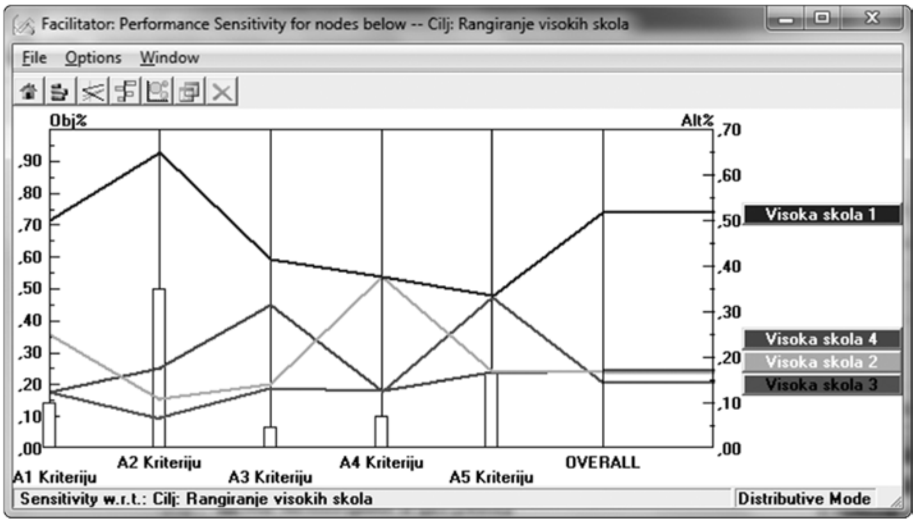
Tabela 6: Sveukupna sinteza problema rangiranja visokih škola

Kriterijumi	**Alternative**	**Prioritet (Ideal način)**	**Prioritet (Distributivni način)**
A1	VŠ1	0,063	0,066
	VŠ2	0,031	0,033
	VŠ3	0,016	0,016
	VŠ4	0,016	0,016
A2	VŠ1	0,235	0,319
	VŠ2	0,039	0,053
	VŠ3	0,025	0,034
	VŠ4	0,064	0,087
A3	VŠ1	0,028	0,024
	VŠ2	0,009	0,008
	VŠ3	0,009	0,008
	VŠ4	0,021	0,018
A4	VŠ1	0,042	0,033
	VŠ2	0,042	0,033
	VŠ3	0,014	0,011
	VŠ4	0,014	0,011
A5	VŠ1	0,111	0,077
	VŠ2	0,055	0,038
	VŠ3	0,111	0,077
	VŠ4	0,055	0,038

Na osnovu sveukupne sinteze može se zaključiti da je najbolje rangirana visoka škola strukovnih studija VŠ1. Metod AHP se može tumačiti i kao kompaktnost u proceni kriterijuma. Prema tome, hijerarhijska struktura AHP metode je sposobnost da se mere i sintetizuju različiti faktori složenih procesa donošenja odluka u hijerarhijskom obliku tako da je jednostavno kombinovati delove u celinu [18]. Prioriteti i krajnji rang alternativa može se prikazati i konačnim prikazom (Tabela 7).

Tabela 7: Prioriteti i konačan rang alternativa AHP modela za ocenu i rangiranje visokih škola

Alternative	Rezultat (Ideal način)	Rezultat (Distributivni način)	Rang (Ideal način)	Rang (Distributivni način)
VŠ1	0,479	0,519	1	1
VŠ2	0,177	0,165	2	3
VŠ3	0,173	0,145	3	4
VŠ4	0,171	0,171	4	2



Slika 4: Grafički prikaz analize osetljivosti performansi prema kriterijumima za četiri visoke škole (Distributivni način)

Na osnovu dobijenih rezultata može se zaključiti da je i ovde najbolje rangirana visoka škola strukovnih studija (VŠ1).

5. ZAKLJUČAK

U radu je prikazana primena AHP metode na primeru četiri visoke škole strukovnih studija, čiji je osnivač Republika Srbija. Osnova rada polazi od činjenice sagledavanja specifičnosti oblasti visokog obrazovanja. Oblast visokog obrazovanja je uslužnog karaktera i vrlo osetljiv proces. Korisnici usluga visokog obrazovanja nisu samo studenti i potrebno je šire sagledati mogućnost kombinovanja kriterijuma za rangiranje, kako bi se kompletirala celokupna priča o samom rangiranju visokih škola strukovnih studija. Cilj rada je bio prikazivanje mogućnosti vršenja rangiranja visokoškolskih ustanova primenom metode AHP. Rezultati primene metode pokazuju da se problemi rangiranja visokih škola mogu uspešno rešiti primenom AHP metode, što je ujedno i potvrda postavljene hipoteze na početku rada.

Suštinski, za sprovedenu analizu su postojala određena ograničenja. U radu nisu korišćeni finansijski pokazetelji (dobitak – gubitak), kao vrlo značajni pokazatelji na osnovu kojih bi se mogla dati sveobuhvatnija ocena o rangiranju visokih škola. Takođe, onemogućena je dostupnost podataka, koji se odnose na broj upisanih studenata, kao i o broju diplomiranih studenata. Podaci o brzini zapošljavanja diplomiranih studenata u struci kao i visina zarada bivših studenata ukazuju na sveobuhvatnost merenja performansi visokih škola strukovnih studija. Izbo-

rom ulaza kao što su: kompetentnost nastavnog osoblja, kompetencije diplomiranih studenata, usaglašenost studijskih programa sa potrebama privrede, stepen interesovanja srednjoškolske populacije, dobila bi se višedimenzionalna slika. Uključivanjem ovih komponenti kao i jačom informatičkom podrškom unapredilo bi se vrednovanje i rangiranje zadatih komponenti. Pravac budućih istraživanja odnosi se na integrisanje AHP metode sa drugim višekriterijumskim metodama za primenu u oblasti visokog obrazovanja.

LITERATURA

[1] Borović, S., Milićević, M. (2001) *Zbirka zadataka iz odabranih oblasti iz operacionih istraživanja*, Sektor za školstvo, obuku, naučnu i izdavačku delatnost, Uprava za naučnu i izdavačku delatnost, Vojna Akademija, Beograd.
[2] Krčevinac, S., Čangalović, M., Kovačević-Vujčić, V., Martić, M., Vujošević, M., (2004) *Operaciona istraživanja*, Fakultet organizacionih nauka, Beograd.
[3] Academic Ranking of World Universities 2016.
[4] http://www.shanghairanking.com/index.html (Datum pristupa 20.12.2018.)
[5] Oliveira, O. J., (2009) *Adaptation and Application of the SERVQUAL scale in higher education*, São Paulo State University.
[6] Konferencija Akademija strukovnih studija Srbije,
[7] http://www.kasss.rs/ (Datum pristupa 20.12.2018.)
[8] Čupić, M., Suknović, M., (2008) *Odlučivanje*, Fakultet organizacionih nauka, Beograd.
[9] Saaty, T., (2013) *Theory and Applications of the Analytic Network Process*, Pittsburgh, PA, USA.
[10] Bhusman, N., Rai, K., (2004) *Strategic Decision Making Applying the Analytic Hierarchy Process*, Springer-Verlag, London.
[11] Nikolić, I., Borović, S., (1996) *Višekriterijumska optimizacija: metode, primena u logistici, softver*, Centar vojnih škola Vojske Jugoslavije, Beograd.
[12] Melvin, A., (2012). "Decision-Making using the Analytic Hierarchy Process (AHP) and SAS/IML. Social Security Administration., Baltimore, MD., Paper SD-04.
[13] Zakon o visokom obrazovanju (Sl. Glasnik RS), br. 76/2005, 100/2007 – autentično tumačenje, 97/2008, 44/2010 i 93/2012.
[14] Pravilnik o standardima i postupku za akreditaciju visokoškolskih ustanova i studijskih programa, 2006.
[15] Saaty, T., Kearns, K., (1985) *Analytical Planning The Organization of Systems*, Pittsburgh, Pergamon Press, Oxford.
[16] Expert Choice (2006). Expert Choice. Dostupno na: https://www.expertchoice.com/
[17] Fakultet organizacionih nauka, (2019) *Teorija odlučivanja, Materijali za pripremu pismenog dela ispita*, http://odlucivanje.fon.bg.ac.rs/wp-content/uploads/AHP.pdf (Datum pristupa 22.02.2018.)
[18] de FSM Russo, R., Camanho, R. (2015) Criteria in AHP: A Systematic Review of Literature, *Procedia Computer Science*, Volume 55, pp. 1123-1132.
[19] doi.org/10.1016/j.procs.2015.07.081

NANO-TEHNOLOŠKE AKTIVNOSTI: DIFERENTNOST POZICIJE IZMEĐU MANJE I NAJMANJE AKTIVNIH ZEMALJA U KVANTITETU I KVALITETU*

NANO-TECHNOLOGICAL ACTIVITIES: DIFFERENCE BETWEEN THE POSITION OF LESS AND MINIMUM ACTIVE COUNTRIES IN THE QUANTITY AND THE QUALITY

Vesna M. Milanović[1]
Katarina D. Njegić (Radosavljević)[2]
Nikolina Vrcelj[3]

DOI: https://doi.org/10.31410/EMAN.2019.515

Sadržaj – *U ovom radu je predstavljena diferentnost pozicije između manje i najmanje aktivnih zemalja u kvantitetu i kvalitetu nano-tehnološke aktivnosti u periodu 2008-2017. godina. Diferentnost pozicije ovih zemalja je posmatrana kroz broj nano-tehnoloških publikacija kao indikator kvantiteta, i ukupan i prosečni broj citata kao indikator kvaliteta. Korišćeni su Statnano podaci o posmatranim indikatorima. Cilj ovog rada je bio da pruži uvid u diferentnost pozicije posmatranih zemalja unutar grupe i između grupa u kvantitetu i kvalitetu nano-tehnološke aktivnosti u periodu 2007-2018.*

Ključne reči: *diferentnost pozicije, kvantitet i kvalitet nano-tehnološke aktivnosti*

Abstract – *In this paper the differential of the position between the less and least active countries in the quantity and the quality of the nanotechnology activity in period 2008-2017 was presented. The differential of the position of these countries was observed through the number of nanotechnology publications as a quantity indicator, and the total number of citations, and the average number of citations as quality indicators. The Statnano data on observed indicators were used. The aim of this paper was to provide an insight into the differential of the position of the observed countries both within the group and between groups in the quantity and the quality of the nanotechnology activity in period 2007-2018.*

Keywords: *differential of the position, the quality and the quantity of nano-technology activity*

---

1. UVOD

Područje nano-naučnih i nano-tehnoloških istraživanja kontinualno karakteriše pojava novih konkurenata. Ovo potvrđuju rezultati mnogih studija [1], [2], [3]. Pojedine zemlje koje su do pre jednu deceniju, globalno posmatrano, bile neaktivne u nano-tehnologiji a ne pripadaju grupi razvijenih zemalja, imaju brže stope rasta nano-tehnoloških publikacija od više aktivnih zemalja u ovoj oblasti. Takođe, one ne moraju imati visok indeks globalne konkurentnosti da bi se pojavile kao novi konkurenti. Naime, da bi se zemlje uključile u proces globalizacije nano-tehnologija jeste značajno, ali nije nužno da one budu visoko pozicionirane

* Ovaj rad je podržan od strane Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (projekat III 45003). 1

21 Univerzitet „Union-Nikola Tesla“, Beograd, Poslovni i pravni fakultet, Mladenovac-Beograd, Knez Mihailova 33, 11000 Beograd, Srbija

2 Visoka škola za poslovnu ekonomiju i preduzetništvo, Beograd, Mitropolita Petra 8, 11000 Beograd, Srbija

3 Udruženje ekonomista i menadžera Balkana, Beograd, Ustanička 179, 11000 Beograd, Srbija

u globalnoj konkurentnosti. Indikatori Svetskog ekonomskog foruma (*World Economic Forum*) za ocenu globalne konkurentnosti zemalja jesu važni pokazatelji njihove sposobnosti da se aktiviraju u nano-tehnologiji, međutim, nisu pouzdan indikator da će zemlja *a priori* biti potencijalni konkurent u nano-tehnološkoj aktivnosti čak i kada poboljša globalnu konkurentnost [4: 78]. U prilog tome idu i mnogi nalazi dosadašnjih studija koji ukazuju na manje povoljno pozicioniranje tradicionalnih konkurenata i povoljno repozicioniranje zemalja – novih konkurenata u nano-tehnološkoj aktivnosti [1], [2], [3], [5]. Jačina njihove nano-tehnološke aktivnosti nije jednaka. Kategorija zemalja „novi konkurenti“ je veoma promenljiva. One zemlje koje su pre jedne decenije bile novi konkurenti danas to više nisu.

Uvidom u relevantnu literaturu steklo se saznanje da je manje empirijskih studija u kojima su se istraživači iz više aktivnih zemalja u nano-tehnologiji bavili manje ili najmanje aktivnim zemljama u nano-tehnologiji. Istraživanjima i analizom pozicija ovih zemalja su se uglavnom bavili domaći istraživači [6], [7], [8], ili su one našle mesto u studijama koje daju prikaz stanja u glabalnoj nano-nauci i nano-tehnologiji kao što su [2], [3].

Imajući u vidu navedeno, u ovom radu su analizirane pozicije dve grupe zemalja, koje su klasifikovane u grupu manje aktivnih i grupu najmanje aktivnih zemalja prema indikatorima kvantiteta i kvaliteta nano-tehnološke aktivnosti. Posvećivanje pažnje ovim zemljama je omogućilo da se dođe do odgovora na pitanje da li se pojavljuju kao novi konkurenti na globalnoj nano-naučnoj sceni, i ako da, iz kojih zemalja dolaze i kakvu diferentnu prednost stvaraju, ako stvaraju. Takođe, da li postoji diferentnost između ove dve grupe zemalja i unutar svake grupe u kvalitetu i kvantitetu nano-tehnološke aktivnosti.

Rad je strukturiran tako da se u odeljku dva pojmovno određuju indikatori kvantiteta i kvaliteta, u odeljku tri je prezentovan pristup analizi, u odeljku četiri analiza i rezultati. Potom su prezentovani zaključak i spisak referenci.

2. INDIKATORI KVANTITETA I KVALITETA

Kao indikator kvantiteta, korišćene su nano-tehnološke publikacije, a kao indikatori kvaliteta nano-tehnološki citati i prosečan broj citata (iako su kvantitativno izraženi). Pretpostavlja se da veći broj citata indirektno upućuje na veći kvalitet same publikacije.
Nano-tehnološke publikacije, kao izraz objavljenih naučnih članaka, upućuju na obim naučno-istraživačke aktivnosti. Izražavaju se kroz više indikatora od kojih je ukupan broj publikacija tradicionalno najšire korišćen. Sam broj publikacija, kao indikator, ponekad zahteva dopunu brojem istraživača ili naučnika kako bi se stekao realniji utisak o poziciji zemlje. U bazama podataka o publikacijama se uglavnom nalaze publikacije (članci) na engleskom jeziku [9: 127] što otežava potpunu identifikaciju naučne aktivnosti manje aktivnih zemalja odnosno onih u kojima se pišu radovi na drugim jezicima i kao takvi objavljuju u međunarodnim časopisima. Ono što je 90-ih godina 20. veka takođe bilo ograničavajuće, postepeno se prevazilazi, a to je da je da je određivanje da li je jedan članak u oblasti nano-tehnologije napredovao pošto najveći procenat članaka (80% u 2010. godini) u ovoj oblasti ima prefiks „nano“ u svojim naslovima i sažecima [10]. Ovo doprinosi tome da svi članci koji se bave temama u području nano-tehnologije budu uključeni u baze podataka ili ih pretraga lako pronalazi zahvaljujući prefiksu „nano“, jer ranije objavljeni članci u ovoj širokoj multidisciplinarnoj oblasti, prema naslovu i sažetku, nisu prepoznati kao članci u oblasti nano-tehnologije.

Citati su odraz kvaliteta naučnih istraživanja. Izražavaju se kroz više indikatora od kojih su dva tradicionalna: ukupan i prosečan broj citata. Poželjno je da je prosečan broj citata veći jer je, prema tome, veći broj citiranih publikacija ili veći broj citata određenih publikacija. Uočava se da neke publikacije nemaju citate ili skoro nikada ne budu citirane, što umanjuje kvalitet naučne aktivnosti. Zato se izračunava i odnos između broja citata i broja publikacija.

3. PRISTUP ANALIZI

U radu je analizirana pozicija 52 zemlje. Njihovu poziciju su odredile njihove publikacije, citati i prosečni citati u nano-tehnologiji u periodu 2008-2017. godina. Podaci o navedenim indikatorima su preuzeti iz Statnano baze podataka [11]. Metodologija koja je primenjena u analizi se zasniva na metodologiji koja je primenjena u [12].

Grupu manje aktivnih zemalja su činile zemlje koje su u periodu 2008-2017. godina imale ukupan broj nano-tehnoloških publikacija od 4.000 do 9.999, ukupan broj nano-tehnoloških citata od 50.000 do 149.999 i prosečan broj citata od 150 do 199.[4] Prema navedenom, grupu manje aktivnih zemalja su činile 32 različite zemlje (Tabela 1):
I: Analizirana je pozicija 15 zemalja u kvantitetu nano-tehnološke aktivnosti.
II: Analizirana je pozicija 15 zemalja u kvalitetu nano-tehnološke aktivnosti - prema ukupnom broju nano-tehnoloških citata. Među ovih 15 zemalja je 14 zemalja čija je pozicija analizirana i prema kvantitetu nano-tehnološke aktivnosti i jedna nova članica – Malezija (Ukrajina nije zadovoljila kriterijum za analizu prema ukupnom broju citata).
III: U analizu pozicije, prema prosečnom broju nano-tehnoloških citata, je uključeno 20 zemalja i to četiri zemlje čija je pozicija i prema prva dva indikatora analizirana u okviru ove grupe (Češka, Portugalija, Pakistan i Grčka), dve zemlje koje su se prema prva dva indikatora pozicionirale u nižu grupu – grupu najmanje aktivnih zemalja (Norveška i Novi Zeland), devet novih zemalja (Kina, Francuska, Južna Koreja, Italija, Japan, Turska, Indija, Tajvan, Iran)[5] i pet potpuno novih zemalja koje se nisu našle u analizi publikacija i citata ni u jednoj od ove dve grupe – Island, Urugvaj, Moldavija, Venecuela i Luksemburg[6].

Grupu najmanje aktivnih zemalja su činile zemlje koje su u periodu 2008-2017. godina imale ukupan broj nano-tehnoloških publikacija od 1.000 do 3.999, ukupan broj nano-tehnoloških citata od 10.000 do 49.999 i prosečan broj citata od 100 do 149. Prema navedenom, grupu najmanje aktivnih zemalja je činilo 20 različitih zemalja (Tabela 1):

- I: Analizirana je pozicija 19 zemalja u kvantitetu nano-tehnološke aktivnosti (od kojih su dve postojeće: Norveška i Novi Zeland)
- II: Analizirana je pozicija 19 zemalja u kvalitetu nano-tehnološke aktivnosti – prema ukupnom broju citata (jedna zemlja je nova u grupi – Estonija)
- III: Analizirana je pozicija 19 zemalja u kvalitetu nano-tehnološke aktivnosti – prema prosečnom broju citata (dve zemlje su nove – Poljska i Brazil[7]).

---

[4] Analiza konkurentske pozicije najaktivnijih i više aktivnih zemalja se zasnivala na predstavljanju pozicija SAD i Kine kao najaktivnijih zemalja i pozicija grupe više aktivnih zemalja koju su činile zemlje sa brojem publikacija od 10.000 i više (a manje od Kine), brojem citata 150.0000 i više a manje od SAD, i brojem prosečnih citata od 200 i više u periodu 2008-2017 [12].

[5] To su zemlje sa višim nivoom kvantiteta nano-tehnološke aktivnosti i kvaliteta u aspektu ukupnog broja citata. Pripadaju grupi najaktivnijih i više aktivnih zemalja [12].

[6] Njihov broj publikacija i citata je ispod 1.000 odnosno ispod 10.000 respektivno.

[7] Pripadaju grupi više aktivnih zemalja prema prva dva indikatora [12].

Tabela br. 1: Pregled analiziranih zemalja po grupama

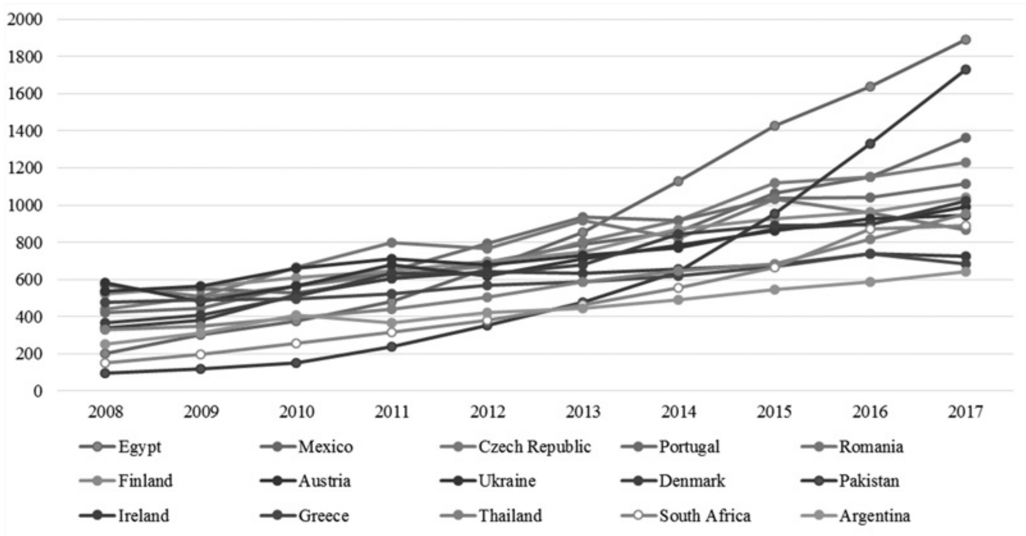
rang	zemlje prema nano-tehnološkim publikacijama	rang	zemlje prema nano-tehnološkim citatima	rang	zemlje prema prosečnim nano-tehnološkim citatima
			grupa manje aktivnih zemalja		
1	Egypt (Egipat)	1	Denmark	1	Norway (Norveška)
2	Mexico (Meksiko)	2	Austria	2	Portugal
3	Czech Republic (Češka)	3	Finland	3	China (Kina)
4	Portugal (Portugalija)	4	Ireland	4	France (Francuska)
5	Romania (Rumunija)	5	Portugal	5	South Korea (J. Koreja)
6	Finland (Finska)	6	Malaysia (Malezija)	6	New Zealand (N. Zeland)
7	Austria (Austrija)	7	Czech Rep	7	Iceland (Island)
8	Ukraine (Ukrajina)	8	Greece	8	Italy (Italija)
9	Denmark (Danska)	9	Egypt	9	Uruguay (Urugvaj)
10	Pakistan (Pakistan)	10	Mexico	10	Moldova (Moldavija)
11	Ireland (Irska)	11	Romania	11	Greece
12	Greece (Grčka)	12	Thailand	12	Japan (Japan)
13	Thailand (Tajland)	13	Pakistan	13	Turkey (Turska)
14	South Africa (J. Afrika)	14	South Africa	14	Pakistan
15	Argentina (Argentina)	15	Argentina	15	India (Indija)
				16	Taiwan (Tajvan)
				17	Czech Republic
				18	Iran (Iran)
				19	Venezuela (Venecuela)
				20	Luxembourg Luksemburg)
			grupa najmanje aktivnih zemalja		
16	Hungary (Mađarska)	16	Ukraine	21	Thailand
17	Serbia (Srbija)	17	Hungary	22	Egypt
18	Slovenia (Slovenija)	18	Norway	23	Slovenia
19	Tunisia (Tunis)	19	New Zealand	24	South Africa
20	Norway	20	Slovenia	25	Croatia
21	Vietnam (Vijetnam)	21	Serbia	26	Argentina
22	Chile (Čile)	22	Chile	27	Malaysia
23	Slovakia (Slovačka)	23	Bulgaria	28	Hungary
24	New Zealand	24	Slovakia	29	Brazil (Brazil)
25	Bulgaria (Bugarska)	25	Tunisia	30	Indonesia
26	Algeria (Alžir)	26	Vietnam	31	Chile
27	Belarus (Belorusija)	27	Algeria	32	Morocco
28	Colombia (Kolumbija)	28	Croatia	33	Algeria
29	Lithuania (Litvanija)	29	Estonia (Estonija)	34	Serbia
30	Croatia (Hrvatska)	30	UAE	35	Mexico
31	Iraq (Irak)	31	Belarus	36	Bulgaria
32	Maroco (Maroko)	32	Litvanija	37	Poland (Poljska)
33	UAE (U.A. Emirati)	33	Colombia	38	Vietnam
34	Indonesia (Indonezija)	34	Maroco	39	Iraq

U radu je za poređenje pozicije posmatranih zemalja u prethodnim periodima uglavnom poslužila opsežna studija Tomson Rojtersa - [2].

3. ANALIZA I REZULTATI

3.1. Analiza diferentnosti pozicije zemalja unutar grupe manje aktivnih zemalja

Pozicije zemalja unutar grupe manje aktivnih zemalja, prema broju nano-tehnoloških publikacija, po godinama posmatranog perioda su prikazane na Slici 1.



Slika 1: Pozicije zemalja unutar grupe manje aktivnih zemalja
prema broju nano-tehnoloških publikacija
(zemlje sa brojem nano-tehnoloških publikacija od 4.000 do 9.999 u ukupnom periodu)

Uvidom u Sliku 1, ukoliko se posmatra celokupan period, ne uočavaju se segmenti zemalja. Ono što izaziva pažnju je najbrži rast nano-tehnoloških publikacija Egipta i Pakistana.

Razvoj nano-tehnologije u Egiptu se odvija pod plaštom dobro uspostavljenog i organizaciono strukturiranog naučno-tehnološkog razvoja a kroz saradnju sa univerzitetima i istraživačkim centrima Evrope i Severne Amerike. Iako nema formalno uspostavljenu politiku u oblasti nauke i tehnologije, pa ni nano-nauke i nano-tehnologije, Egipat je povećao broj publikacija više od četiri puta u periodu 2008-2013. u odnosu na period 2002-2007. godina. U čitavom periodu (2002-2013.) imao je najveći broj publikacija među arapskim zemljama [13: Tab. 2]. Izuzimajući druge više aktivne zemlje – regionalne konkurente, u periodu 1995-2011. godina, Egipat je imao veći broj ovih publikacija od Saudijske Arabije [2: 21, Fig. 14] koja je pozicionirana u grupi višeg statusa [12]. Njegov trend kontinualnog povećanja broja publikacija je doveo do toga da je u 2014. godini dostigao značajnu diferentnost pozicije u ovoj grupi. Od 2016. godine ga u tome prati Pakistan (drugi je u grupi).

Povoljno repozicioniranje Pakistana ima još veći značaj ako se uzme u obzir činjenica da je u periodu 1995-2011. godina imao mnogo manje nano-tehnoloških publikacija od Južne Afrike [2: 19, Tab. 1] koja se u ovoj analizi našla u podgrupi sa niže pozicioniranim zemljama dok je nepovoljno pozicioniranje u odnosu na Pakistan zabeležila 2013. Takođe, Pakistan je bio najlošije pozicionirana zemlja u grupi u 2008. godini. Od tada pokazuje izuzetan rast, naročito od 2014. godine. Prema [7] veliku ulogu u rastu nano-tehnoloških publikacija Pakistana su imali univerziteti. U svemu navedenom se ogleda posvećenost Egipta i Pakistana oblasti nano-tehnologije. Ove dve zemlje ostvaruju značajnu diferentnost u odnosu na ostale zemlje u poslednjim godinama posmatranog perioda pri čemu Pakistan smanjuje diferentnost Egipta.

Pored Egipta i Pakistana, pažnju izaziva repozicioniranje Meksika u 2016. godini. Nano-tehnologije su prioritetna oblast istraživanja u Meksiku, tako da se fondovi za nano-tehnologije obezbeđuju iz javnog sektora, što olakšava istraživanje [14]. Ovo je pogodnost koju Meksiko efikasno koristi u nano-naučnoj produkciji. Meksiko je od 2016. godine treći u grupi, tako što je potisnuo Češku na četvrto mesto. Sledi ih Portugalija koja je u 2015. godini potisnula Rumuniju. Tokom posmatranog perioda u radu, Meksiko je imao najmanju diferentnost pozicije sa Češkom, a u periodu 1988-2012 sa Češkom i Rumunijom [15: 127, Fig. 1]. Međutim, ukoliko se pogleda broj nano-tehnoloških publikacija u periodu 1998-2009. godina uviđa se da je Češka imala više publikacija (191) nego što su imale Rumunija (71) i Portugalija (73) zajedno [16: 23, Fig. 8]. Ponovnu diferentnost u odnosu na ove dve zemlje Češka je dostigla u 2014. godini, ali je manjeg nivoa. Beleži se značajno zaostajanje Rumunije u odnosu na Portugaliju (od 2015.).

Finska, Danska, Austrija i Ukrajina imaju najmanju međusobnu diferentnost od 2012. godine. Do 2012. godine, najbolje pozicionirana zemlja je bila Austrija, a nakon toga Finska. Austrija je bila bolje pozicionirana od Finske i u periodu 1998-2009. godina, dok je Danska bila značajno slabije pozicionirana u odnosu na Finsku i Austriju [16: 23, Fig. 8]. Prema [2: 21, Fig. 13] Grčka, Austrija i Danska su bile međusobno najviše konkurentne prema broju publikacija u periodu 1995-2011. godina, dok je Tajland bio najbliži Danskoj. U posmatranom periodu u ovom radu Grčka i Tajland su slabije pozicionirani u odnosu na Austriju, Dansku i Finsku. Naime, Grčka je najbliži konkurent sa Irskom naročito od druge polovine posmatranog perioda. U odnosu na njih, Tajland gradi diferentnost od 2015. godine. U 2003. godini on je započeo sa nacionalnom nano-tehnološkom inicijativom [17: 8] a u periodu 1991-2010. godina, među zemljama ASEAN-a, bio je drugoplasirana zemlja po broju publikacija unutar ove integracije, odmah iza Singapura [18: 107]. Ovo ukazuje na značaj Tajlanda kao regionalnog konkurenta.

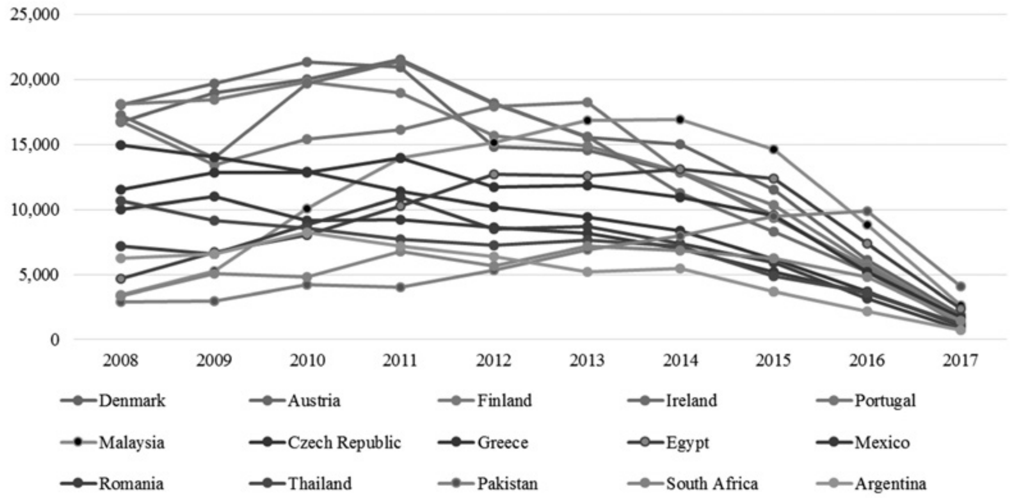
Južna Afrika je, od skoro najlošije pozicionirane zemlje u 2008. godini, bolje pozicionirana od Tajlanda u 2016. godini, čime smanjuje međusobnu diferentnost. U periodu 1995-2011. je imala neznatno manji broj nano-tehnoloških publikacija od Argentine [2: 21, Fig. 13]. Međutim, u posmatranom periodu u ovom radu premašuje Argentinu u 2013. godini, nastavljajući sa gradnjom diferentne prednosti. Prema [8], Južna Afrika se kontinualno povoljno pozicionira, jer strateški ulaže u razvoj ljudskih resursa - obrazovanje mladih istraživača, razvoj istraživačkih i inovacionih centara, razvojnih platformi i saradnju sa Brazilom i Indijom. Tokom posmatranog perioda, Južna Afrika skromnije razvija diferentnost, ali je ona zapažena. U 2013. godini potiskuje Argentinu u status najlošije pozicionirane zemlje u grupi.

Pozicija zemalja unutar grupe manje aktivnih zemalja, prema ukupnom broju nano-tehnoloških citata, po godinama posmatranog perioda je prikazana na Slici 2.

Uvidom u Sliku 2 ne uočavaju se jasni segmenti zemalja prema ukupnom broju citata. Međutim, može da se primeti da Češka uslovno deli grupu. Meksiko i Tajland (međusobno slabo diferentni), Rumunija, Argentina, Južna Afrika, i Grčka - od 2010. godine, Irska (od 2014.), Malezija (do. 2011.), Egipat (do 2012.) i Pakistan (do 2015.) su bili niže pozicionirani od Češke. Od 2012. godine ove zemje su međusobno slabije diferentne. Bolje pozicionirane od Češke su Austrija i Finska (međusobno slabo diferentne), Danska i Irska - do 2014. godine (međusobno slabo diferentne), te Portugalija koja ih premašuje po ukupnim citatima 2012. godine. Ona je povoljno pozicionirana među zemljama višeg nivoa aktivnosti u ukupnim citatima.

Zapaža se povoljno kontinualno pozicioniranje Malezije, Egipta i Pakistana. Malezija preuzima vođstvo u grupi u 2014. godini. Može se reći da Malezija kontinualno poboljšava svoju poziciju

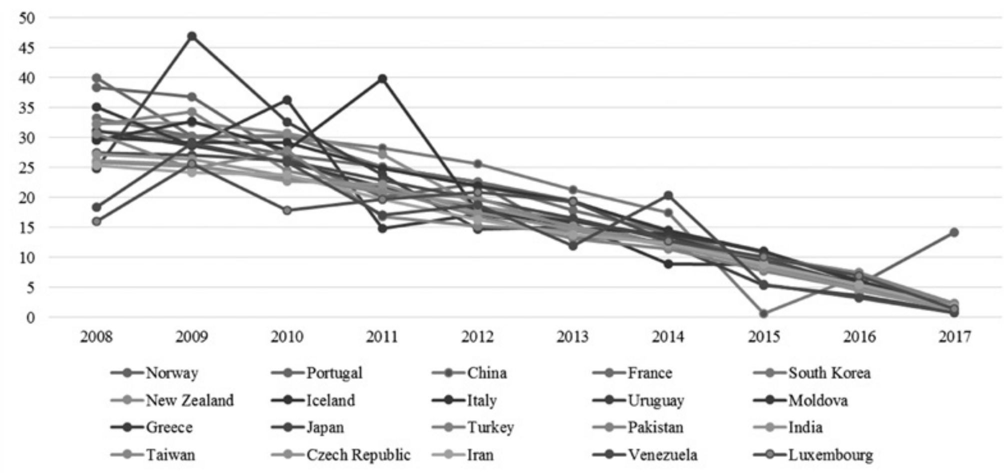
u kvalitetu uporedo sa kvantitetom, iako se u [19] smatra da je nano-tehnologija u Maleziji još uvek u povoju imajući u vidu da je nacionalna nano-tehnološka inicijativa usvojena tek 2006. godine. Ipak, Malezija je zemlja sa mnogo većim brojem nano-tehnoloških publikacija od prvoplasirane zemlje u grupi (11.003 na dan 25.10.2018 u periodu 2008-2017) [11]. Malezija gubi prvu poziciju 2016. godine od Pakistana. A Egipat se od 2014. godine plasira među prve tri zemlje u grupi. Posmatrajući poziciju Egipta u periodu 1995-2011. godina, uviđa se da je imao veći broj ukupnih citata i od Malezije i od Pakistana [2: 19, Tab. 1].



Slika 2: Pozicije zemalja unutar grupe manje aktivnih zemalja
prema broju nano-tehnoloških citata
(zemlje sa brojem nano-tehnoloških citata od 50.000 do 149.999 u ukupnom periodu)

Češka, Egipat, Meksiko, Rumunija, Pakistan, a naročito Malezija su zauzeli niži rang prema broju citata u odnosu na broj publikacija. Ovo se odnosi i na Portugaliju sa razlikom da je njena pozicija samo neznatno lošija. Južna Afrika i Argentina imaju isti rang a ostale zemlje su bolje pozicionirane u ukupnom broju citata nego u broju publikacija (Danska, Austrija, Finska, Irska, Grčka, i neznatno Tajland).

Pozicije zemalja unutar grupe manje aktivnih zemalja, prema prosečnom broju nano-tehnoloških citata, po godinama posmatranog perioda su prikazane na Slici 3.



Slika 3: Pozicije zemalja unutar grupe manje aktivnih zemalja
prema prosečnom broju nano-tehnoloških citata
(zemlje sa prosečnim brojem nano-tehnoloških citata od 150 do 199 u ukupnom periodu)

Češka, Portugalija, Pakistan i Grčka su zemlje koje su se pozicionirale i prema prva dva indikatora u ovu grupu zemalja. Češka i Pakistan su lošije pozicionirani od Grčke, a Grčka od Portugalije. Samo je Portugalija uspela da se bolje pozicionira u kvalitetu prema prosečnim citatima u odnosu na prva dva indikatora.

Norveška i Novi Zeland pokazuju viši kvalitet meren prosečnim brojem citata nego kvantitet. Naime, ove zemlje su povoljno repozicionirale iz grupe nižeg statusa (grupe najmanje aktivnih zemalja) u kojoj su pozicionirane prema ukupnom broju nano-tehnoloških publikacija i citata (predstavljeno u tački 3.2.).

Kina, Francuska, Južna Koreja, Italija, Japan, Turska, Indija, Tajvan, Iran su nepovoljno pozicionirane prema prosečnom broju citata u odnosu na prva dva indikatora. To su zemlje sa višim nivoom kvantiteta nano-tehnološke aktivnosti i kvaliteta u aspektu ukupnog broja citata. Pripadaju grupi najaktivnijih (Kina) i više aktivnih zemalja (ostale zemlje) [12] koje u ovom radu nisu bile predmet analize. Prosečna citiranost nano-tehnoloških publikacija Kine i Indije je zaostajala za svetskim prosekom do 2000. godine da bi u periodu 2000-2007. došlo do značajnijeg rasta. Višestruko su veće prosečne godišnje stope rasta nano-tehnoloških publikacija ovih zemalja nego prosečan rast njihovih citata u ovom periodu [20: 1845]. Međutim, u periodu 2008-2017. ove zemlje poboljšavaju prosečnu citiranost, naročito Kina. Ako se pogleda pozicija Irana u prosečnom broju citata u periodu 1995-2011. godina može se videti da je imao lošiju poziciju od pozicije Egipta (koji je u grupi najmanje aktivnih zemalja po prosečnim citatima) [2: 19, Tab. 1]. Sudeći po tome Iran kontinualno poboljšava poziciju u prosečnoj citiranosti.

Uvidom u Sliku 3 uočava se značajno visok broj prosečnih citata u pojedinim godinama kod Islanda, Urugvaja, Moldavije, Venecuele i Luksemburga. Ove zemlje nisu analizirane prema prva dva indikatora usled malog broja publikacija i citata (imale su ispod 1.000, odnosno 10.000 respektivno u posmatranom periodu). Njihovo povoljno repozicioniranje u ovu grupu prema prosečnim citatima je posledica i naglih skokova broja prosečnih citata u određenim godinama. Ako se izuzme Kina, Luksemburg ima najviše upečatljiv kontinuitet povoljnog repozicioniranja u grupi.

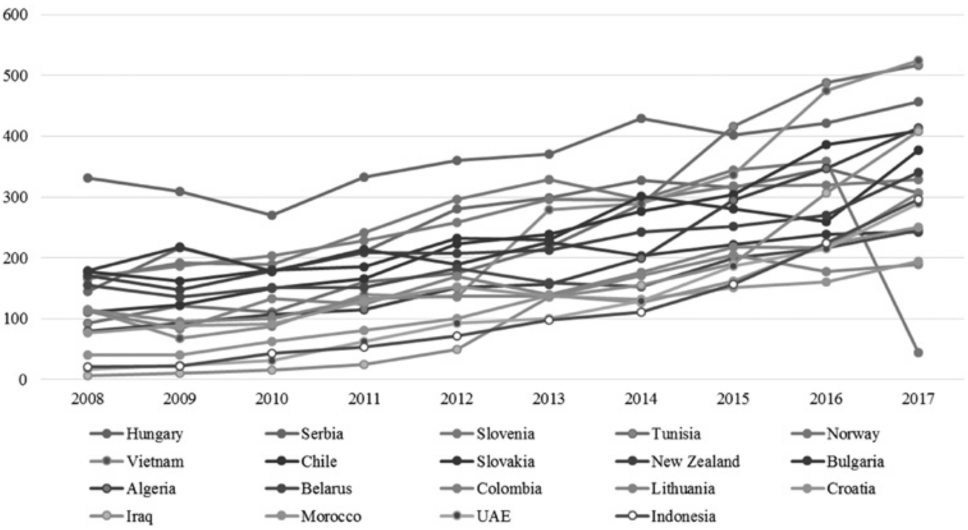
Prema [21: 4], među prvih 10 zemalja u prosečnoj citiranosti su bile pozicionirane i Danska, Finska i Norveška u periodu 2000-2007. Prema ovome reklo bi se da je Norveška nepovoljno repozicionirala. Danska, Austrija Finska i Irska kao četiri najbolje pozicionirane zemlje prema ukupnom broju citata ove grupe su, prema prosečnom broju citata, izuzetno povoljno repozicionirale u grupu višeg statusa - grupu više aktivnih zemalja koja se u ovom radu ne analizira [videti: 12].

3.2. Analiza diferentnosti pozicije najmanje aktivnih zemalja

Pozicije zemalja unutar grupe najmanje aktivnih zemalja, prema broju nano-tehnoloških publikacija, po godinama posmatranog perioda su prikazane na Slici 4.

Uvidom u Sliku 4 ne uočavaju se segmenti zemalja prema ukupnom broju nano-tehnoloških publikacija ove grupe. Ono što je najviše uočljivo je potiskovanje vođstva Mađarske 2015. godine od strane Tunisa i približavanje Vijetnama Tunisu.

Tunis kontinualno jača konkurentnost najpre na regionalnom nivou. Ukoliko se posmatra njegova pozicija među konkurentima iz arapskih zemalja koji su pozicionirani u ove dve grupe, u periodu 2002-2007. godina, Tunis je imao manji broj publikacija samo od Egipta (koji je u grupi višeg statusa). Od 2007. godine nano-tehnologija postaje prioritetno područje Tunisa kada je doneta nacionalna strategija za razvoj nano-tehnologije [13: Tab. 2].



Slika 4: Pozicije zemalja unutar grupe najmanje aktivnih zemalja
prema broju nano-tehnoloških citata
(zemlje sa brojem nano-tehnoloških citata od 1.000 do 3.999 u ukupnom periodu)

Diferentnost Tunisa smanjuje Vijetnam koji preuzima vođstvo u 2017. godini. Ukoliko se posmatra pozicija Vijetnama među konkurentima – zemljama ASEAN-a koje se analiziraju u jednoj od ove dve grupe u ovom radu, Vijetnam je bio pozicioniran posle Tajlanda u periodu 1991-2010. godina (koji je u ovoj analizi u grupi višeg statusa). Učestvovao je sa 6% u broju nano-tehnoloških publikacija zemalja ASEAN-a u ovom periodu [18: 107]. Uzlet Vijetnama je usledio nakon 2003. godine, kada je Ministarstvo za nauku i tehnologiju pokrenulo prvi nacionalni nano-tehnološki program čiji je fokus bio na izgradnji istraživačkih institucija svetskog nivoa, na obrazovanju i infrastrukturi [17: 8]. Ovo je možda jedan od razloga povoljnijeg pozicioniranja Vijetnama u odnosu na Tunis a potom i Mađarsku koja je tek 2007. godine započela sa programima razvoja nano-tehnologije [22].

Čile i Alžir smanjuju međusobnu diferentnost od 2015. godine dok je Irak pokazao kako se od najniže pozicionirane zemlje može doći u prvih šest u zadnjoj godini posmatranog perioda. Regionalno posmatrano, Čile je imao manje povoljnu poziciju od Meksika i Argentine (koji su u grupi višeg statusa) u periodu 1990-2005. godina [23: 263, Fig. 1] kao i u periodu 1995-2011. godina [2:19, Tab. 1] što je relevantno i danas. Takođe, regionalno posmatrano – unutar Arapskog sveta, Alžir je, prema broju publikacija, imao manje povoljnu poziciju od Egipta (koji je u grupi višeg statusa) i Tunisa u periodu 1995-2011 [2:19, Tab. 1]. Čile i Alžir, prema ovome, jesu najbliži konkurenti i zbog toga što su njihove pozicije među njihovim regionalnim konkurentima veoma slične. Alžir i Irak karakterišu relativno zrela infrastruktura visokog obrazovanja (uključujući i neke od najstarijih univerziteta u arapskom svetu) koja omogućava da u saradnji sa susednim zemljama i razvijenim zemljama (Francuska, Italija, Nemačka npr.) razvijaju univerzitetsku mrežu i istraživačke centre kao podršku razvoju nano-tehnologije [13].

Mađarska, Novi Zeland, Slovačka i Norveška su jedine zemlje iz ove grupe koje su bile atraktivne za analizu prema broju publikacija u periodu 1999-2004. godina ali su bile u ovom periodu slabije pozicionirane u odnosu na druge posmatrane zemlje [24: 27, Fig. 21]. U savremenim uslovima, Mađarska, Norveška i Srbija (izuzev 2017.), Slovenija i Slovačka (izuzev 2016.), kao i Novi Zeland ispoljavaju relativnu stabilnost pozicija. Mađarska je do 2015. bila u diferentnom vođstvu u grupi. Norveška je sredinom posmatranog perioda bila druga u grupi. Srbija i Slo-

venija su slabije međusobno diferentne tokom čitavog perioda. Ovo je zanimljivo iz razloga što je Slovenija pre osnovala mrežu za razvoj nano-tehnologije, donela prve programe istraživanja [22] i usvojila već 2005. godine nacionalnu strategiju razvoja koja je predvidela razvoj nano-tehnologije [25]. Srbija je tek 2010. godine donela strategiju naučnog i tehnološkog razvoja kojom je predvidela kao prioritetnu oblast razvoj nano-tehnologija i nije u mogućnosti da učestvuje kao članica EU u fondovima za razvoj nano-tehnologije. U kasnijim navodima u ovom radu se nailazi na činjenicu da je Slovenija bolje pozicionirana od Srbije u kvalitetu istraživanja, što potvrđuje da publikacije nisu odraz kvaliteta već obima istraživanja. Ono što skreće pažnju je da su Srbija i Slovenija bile diferentnije u odnosu na Hrvatsku prema broju publikacija u posmatranom periodu u ovom radu. Slovačka i Novi Zeland izražavaju međusobno slabu diferentnost na početku i na kraju perioda. Bugarska je stabilna tokom perioda sa konkurentnijom pozicijom na početku nego na kraju perioda.

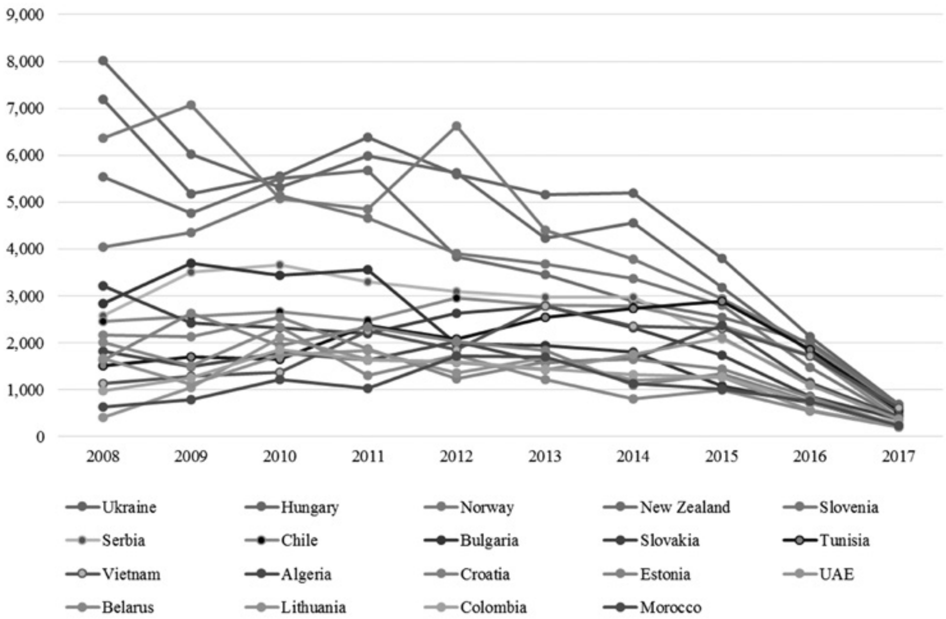
Međusobno jako slabo diferentne zemlje su bile Hrvatska i Litvanija do 2013. godine, Litvanija i Kolumbija od 2013. do 2015. godine i Hrvatska i Maroko od 2013. do 2015. godine. Ovo znači da Kolumbija gradi diferentnost pozicije od 2013. u odnosu na Hrvatsku a od 2015. godine u odnosu na Litvaniju. Hrvatska je 2006. godine ustanovila politiku tehnološkog razvoja koja se oslanjala na razvoj nano-tehnologije [22: 6]. Kao članica EU olakšano aplicira za sredstva namenjena razvoju nano-tehnologije. Međutim, na globalnom nivou posmatrano, to očito nije dovoljno da bi zemlja ostvarila bolju poziciju među konkurentima u grupi najmanje aktivnih zemalja. Litvanija je započela sa programima razvoja nano-tehnologije 2003. godine [22]. Kolumbija je 2005. godine osnovala nacionalno telo za nano-nauku i nano-tehnologiju, a nano-tehnologija se već u 2004. godini našla kao jedna od prioritetnih oblasti za razvoj konkurentnosti i produktivnosti kolumbijske privrede [26: 207]. Kolumbija poboljšava poziciju i u odnosu na Belorusiju 2014. godine koja je bila povoljnije pozicionirana na početku perioda u odnosu na susedne konkurente. Belorusija kao i Litvanija je započela 2003. godine sa programima razvoja nano-tehnologije [22].

Maroko kontinualno povećava broj publikacija u posmatranom periodu i biva bolje pozicioniran od konkurenta iz regiona - Emirata što se odnosilo i na period 2002-2007, ali ne i na period 2002-2013. godina [13: Tab. 2]. Ipak, Maroko nije dobio dobre ocene u smislu razvoja nano-tehnologije. Ovo se može pripisati i slaboj svesti o značaju nano-tehnologije kao i nedostatku sredstava koja se dodeljuju za istraživanja u oblasti nano-tehnologije [13].

Malo blažim intenzitetom su se repozicionirali Indonezija i Emirati koji i imaju manji broj publikacija u odnosu na druge zemlje u grupi. Indonezija je i u periodu 1991-2010. godina bila skoro najslabije pozicionirana zemlja među regionalnim konkurentima - zemljama ASEAN-a po broju publikacija (imala je samo 5% publikacija unutar ove integracije) [18: 107]. Indonezija je jako kasno pokrenula nacionalnu nano-tehnološku inicijativu, tek 2009 [17: 8]. Emirati nemaju formalno usvojenu nacionalnu politiku za nauku već na specifične načine promovišu istraživanje i razvoj u zemlji. Primera radi, 2010. godine donet je dokument koji predstavlja viziju Emirata na svim poljima do 2021. godine ("UAE Vision 2021") ali se u njemu posebno ne navodi nano-tehnologija kao nacionalni prioritet već se naglašava promocija inovacija i istraživanja i razvoja uopšte [13]. Bez obzira na to, Emirati su povećali više od pet puta broj publikacija u periodu 2008-2013. u odnosu na period 2002-2007. godinu [13: Tab. 2]. Očekuje se da će se trend rasta publikacija nastaviti. Ovo je izvesno imajući u vidu činjenicu da ulažu velike investicije u uspostavljanje najsavremenije tehnologije i izgradnju objekata pri čemu još uvek nemaju dovoljan kapacitet u ljudskim resursima – istraživačima [13].

Pozicije zemalja unutar grupe najmanje aktivnih zemalja, prema broju nano-tehnoloških citata, po godinama posmatranog perioda su prikazane na Slici 5.

Uvidom u Sliku 5 uočavaju se dva segmenta. Ukrajina, Mađarska, Norveška, Novi Zeland i Slovenija održavaju diferentnost tokom perioda i grade gornji segment. Takođe, međusobno su diferentne, naročito od 2010. godine. Srbija je sa Bugarskom do 2011. godine a sa Čileom od 2012. godine delioc grupe. Oni grade srednju podgrupu. Srbija zauzima sličnu poziciju u odnosu na svoje susede i prema ovom indikatoru. Bolje je pozicionirana od Hrvatske i nešto lošije od Slovenije. Ostale zemlje grade donji segment. Ono što se uočava u donjem segmentu je povoljno repozicioniranje Čilea, Tunisa i Vijetnama.



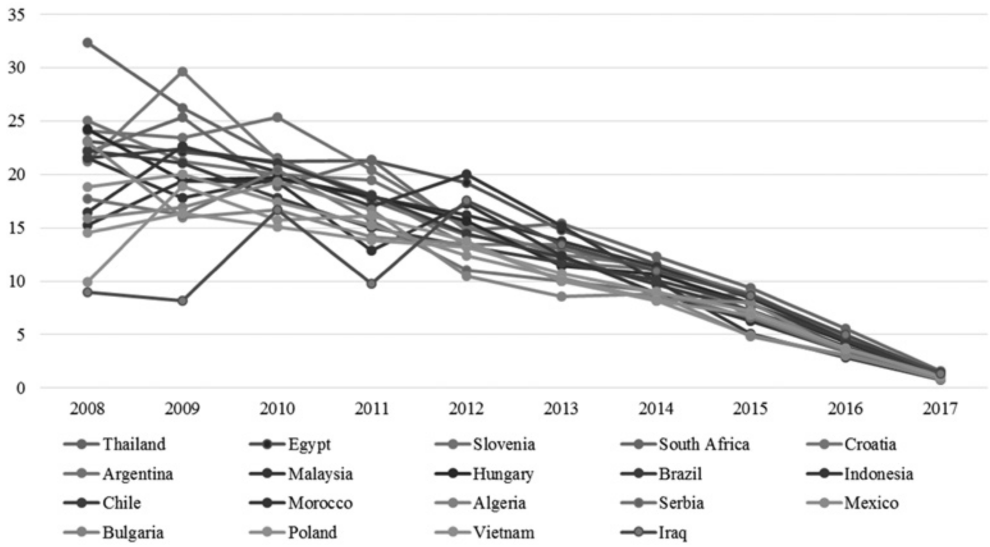
Slika 5: Pozicije zemalja unutar grupe najmanje aktivnih zemalja
prema broju nano-tehnoloških citata
(zemlje sa brojem nano-tehnoloških citata od 10.000 do 49.999 u ukupnom periodu)

Norveška, Novi Zeland, Bugarska, Hrvatska i Emirati imaju viši rang u nano-tehnolškim citatima nego u nano-tehnološkim publikacijama, što upućuje na viši kvalitet istraživanja prema ovom indikatoru. Estonija je povoljno pozicionirana (nije pozicionirana prema ukupnom broju publikacija). Objavila je manje od 10.000 u ukupnom periodu. Čile ima isti rang. Ostale zemlje imaju niži rang u nano-tehnološkim citatima nego u nano-tehnološkim publikacijama. Mađarska, Slovačka, Alžir i Slovenija imaju minimalnu razliku u rangu. Indonezija i Irak se nisu plasirali u ovu grupu prema nano-tehnološkim citatima, jer su ostvarili manje od 100 ukupnih citata u posmatranom periodu zbirno. Ukrajina je nepovoljno repozicionirala iz grupe manje aktivnih zemalja.

Pozicije zemalja unutar grupe najmanje aktivnih zemalja, prema prosečnom broju nano-tehnoloških citata, po godinama posmatranog perioda su prikazane na Slici 6.

Posmatrajući zemlje Bliskog Istoka, Egipat je bio bolje pozicioniran prema prosečnom broju nano-tehnoloških citata od Irana i Emirata u periodu 1995-2011. godina [2: 19, Tab. 1], što nije slučaj u ovoj analizi. Egipat je nepovoljno repozicionirao iz grupe višeg statusa. Prema istom izvoru u istom periodu, povoljniju poziciju prema prosečnom broju citata je imala Argentina

u odnosu na Meksiko i Čile, što se održalo i u periodu 2008-2017. Zauzima srednje pozicije. Takođe se repozicionirala iz grupe višeg statusa. Pored nje, takvo repozicioniranje se dogodilo i Tajlandu, Južnoj Africi, Maleziji i Meksiku. Ovo znači da su navedene zemlje u odnosu na prva dva indikatora, u prosečnim citatima zauzele niži rang.



Slika 6: Pozicije zemalja unutar grupe najmanje aktivnih zemalja
prema prosečnom broju nano-tehnoloških citata
(zemlje sa prosečnim brojem nano-tehnoloških citata od 100 do 149 u ukupnom periodu)

Brazil i Poljska su izuzetno nepovoljno pozicionirani prema prosečnom broju citata, jer se prema prva dva indikatora nalaze u grupi više aktivnih zemalja [12]. U odnosu na prva dva indikatora, u prosečnim citatima, nižu poziciju su zauzeli i Slovenija, Mađarska, Čile, Alžir, Srbija, Bugarska i Vijetnam. Srbija je imala najniži nivo prosečnih citata ukoliko se posmatra u grupi sa susedima - Slovenijom i Hrvatskom u periodu 1995-2011 [2: 19, Tab. 1]. Ona je zadržala tu poziciju i u ovom posmatranom periodu sa bolje pozicioniranom Slovenijom i Hrvatskom. Slovenija radi na kvalitetu više od drugih zemalja bivše Jugoslavije.

U odnosu na prva dva indikatora, u prosečnim citatima: Hrvatska i Maroko su zauzeli viši rang. Indonezija i Irak su povoljno pozicionirani prema prosečnom broju citata (nisu plasirani u ovu grupu prema ukupnom broju nano-tehnoloških citata). Estonija i Emirati su u ovoj grupi prema ukupnim citatima, ali ne i prema prosečnim citatima. Izuzetno povoljno su repozicionirali u grupu više aktivnih zemalja [12].

Neke zemlje nisu bile uključene u ovu analizu, jer se po broju publikacija i citata nisu kvalifikovale ni u jednu grupu, iako prema prosečnom broju citata jesu. Uzimajući u obzir period 2008-2017, godina i prosečan broj citata, to su: Jordan (160,03); Liban (185,9); Nepal (157,64); Kenija (228,46); Šri Lanka (138,83); Kuvajt (145,63); Kipar (147,05); Katar (134,63); Peru (131,61); Gruzija (124); Nigerija (122,81); Kostarika (121,85); Sirija (106,63); Bangladeš (105,46). Druge zemlje nisu analizirane zbog malog broja prosečnih citata iako su analizirane prema ostala dva kriterijuma (Belorusija - 79,2; Litvanija - 97,09 i sl.).

4. ZAKLJUČAK

Analiza diferentnosti pozicije manje aktivnih i najmanje aktivnih zemalja je omogućila sagledavanje međuodnosa ovih grupa i zemalja unutar grupa u nano-tehnološkoj aktivnosti. Ovo je naročito značajno, jer su ove zemlje manje atraktivne za analizu na globalnom nivou. Ova analiza je ponudila uporedni pregled pozicija manje i najmanje aktivnih zemalja u nano-tehnološkoj aktivnosti u periodu 2008-2017. godina i diferentnosti njihovih pozicija i to prema kvantitetu (ukupnom broju nano-tehnoloških publikacija) i kvalitetu nano-tehnoloških istraživanja (ukupnom broju citata i prosečnom broju citata). Podatke je omogućila baza Statnano. Preuzeti su na dan 25.10.2018. godine. Postavljeni cilj rada je ostvaren.

U grupi manje aktivnih zemalja, rezultati ukazuju na: 1) izrazito povoljno repozicioniranje Egipta i Pakistana tokom perioda i stvaranje diferentnosti pozicija u zadnjim godinama posmatranog perioda u kvantitetu nano-tehnološke aktivnosti - broju nano-tehnoloških publikacija kao i trend povoljnog repozicioniranja Meksika i Južne Afrike u ovom području, 2) povoljno repozicioniranje Malezije, Egipta i Pakistana u kvalitetu nano-tehnološke aktivnosti - broju nano-tehnoloških citata 4) povoljno repozicioniranje Luksemburga, Norveške i Novog Zelanda u kvalitetu nano-tehnološke aktivnosti – prosečnoj citiranosti.

Razvijenije evropske ekonomije u grupi pokazuju diferentno bolju poziciju u kvalitetu - ukupnim citatima u odnosu na kvantitet. Danska, Finska, Austrija i Irska tradicionalno pokazuju veći kvalitet meren prosečnim brojem citata. Intergrupno su repozicionirane ka gore u grupu aktivnih zemalja [12]. Njihove pozicije u nano-tehnološkoj aktivnosti su stabilne tokom perioda. Portugalija ostvaruje bolju poziciju u kvalitetu - prosečnim citatima u odnosu na prva dva indikatora za razliku od Grčke, Češke i Pakistana.

Uzrok izražene konkurentnosti u području prosečne citiranosti u ovoj grupi zemalja je veliki broj konkurenata i to: konkurenata koji su repozicionirali u ovu grupu iz grupe nižeg statusa – intergrupno repozicioniranje na gore (Norveška i Novi Zeland), konkurenata koji su repozicionirali u ovu grupu iz grupa višeg statusa – intergrupno repozicioniranje na dole (Kina iz grupe najaktivnijih zemalja i Francuska, Južna Koreja i druge iz više aktivnih zemalja u nano-tehnologiji) [12]; potpuno novih konkurenata (Island, Urugvaj, Moldavija, Venecuela i Luksemburg). Zemlje koje su se intergrupno repozicionirale tradicionalno pokazuju datu konkurentnost u prosečnoj citiranosti.

U grupi najmanje aktivnih zemalja, rezultati ukazuju na: 1) povoljno repozicioniranje Tunisa i Vijetnama, Alžira i Čilea, a naročito Iraka u kvantitetu nano-tehnološke aktivnosti - broju nano-tehnoloških publikacija tokom posmatranog perioda, 2) zapaženo povoljno pozicioniranje u donjem segmentu Čilea, Tunisa i Vijetnama u kvalitetu nano-tehnološke aktivnosti - broju nano-tehnoloških citata, 3) povoljno repozicioniranje Iraka u kvalitetu nano-tehnološke aktivnosti – prosečnoj citiranosti.

Diferentno bolju poziciju u kvalitetu merenom prosečnim citatima u odnosu na prva dva indikatora, pored Iraka, beleže Hrvatska, Maroko i Indonezija. Vijetnam, Alžir i Čile pokazuju nepovoljno pozicioniranje u kvalitetu merenom prosečnim citatima u odnosu na prva dva indikatora. Pored njih to beleže i Slovenija, Srbija, Mađarska i Bugarska.

Uzrok izražene konkurentnosti u području prosečne citiranosti u ovoj grupi zemalja je veliki broj konkurenata i to: konkurenata koji su se repozicionirali u ovu grupu iz grupe višeg statusa – intergrupno repozicioniranje na dole (Tajland, Egipat, Južna Afrika, Malezija**,** Argentina

i Meksiko), konkurenata koji su se repozicionirali u ovu grupu iz grupe mnogo višeg statusa odnosno grupe aktivnih zemalja Brazila i Poljske (intergrupno su se repozicionirali na dole).

Estonija i Emirati su primer zemalja sa najvećom razlikom pozicije u kvantitetu i kvalitetu nano-tehnološke aktivnosti. Irak se izdvaja kao zemlja koja pokazuje povoljno pozicioniranje i u kvantitetu i u kvalitetu nano-tehnološke aktivnosti tokom posmatranog perioda. Egipat i Malezija pokazuju vrlo nepovoljnu poziciju u kvalitetu u odnosu na kvantitet nano-tehnološke aktivnosti.

Može se zaključiti da se pojavljuju novi konkurenti na nano-naučnoj sceni, da dolaze iz svih regiona sveta i zemalja koje su nižeg nivoa aktivnosti unutar regiona, i da grade diferentnost u odnosu na tradicionalne konkurente u grupi. Manje je dinamična i po konkurentnosti frekventna grupa manje aktivnih zemalja. Promene u grupi najmanje aktivnih zemalja su intenzivnije sa neujednačenom frekvencijom. Prema kvantitetu istraživanja u grupi manje aktivnih zemalja je moguće pre uočiti pravilnost u trendu pozicioniranja što je kod grupe najmanje aktivnih zemalja malo teže. To upućuje i na uočljiviju diferentnost pozicija zemalja unutar grupe manje aktivnih zemalja. U pogledu kvaliteta jednako je otežano utvrđivanje odnosa između zemalja unutar obe grupe a naročito kod prosečne citiranosti.

Intenzivniju aktivnost podstiču kako nacionalne nano-tehnološke inicijative, tako i strateška opredeljenja zemalja ka razvoju nano-tehnologije (iako nisu formalizovale ovu oblast), ulaganja u sve resurse naročito u ljudske resurse i saradnja sa drugim zemljama. U svemu ovome je veoma važna podrška države i investicija javnog sektora u istraživanje i razvoj.

LITERATURA

[1] Chen, H., Roco, C. M., Son, J., Jiang, S., Larson, A. C., Gao, Q. (2013) „Global nanotechnology development from 1991 to 2012: patents, scientific publications, and effect of NSF funding“, *J Nanopart Res*, 15(9)/2013, pp. 1-21, doi: 10.1007/s11051-013-1951-4

[2] Thomson Reuters (2013) “Strategic Review of the Nanotechnology Landscape”, KACST Saudi Arabian

[3] Elsevier (2015) „Nanotechnologies Output, Impact and Collaboration, A comparative analysis of France and other countries“, https://www.elsevier.com/research-intelligence/resource-library/nanotech-france-2015 (07.10.2018.)

[4] Milanović, V., Bučalina, A. (2013) „Position of the Countries in Nanotechnology and Global Competitiveness”, *Management, Journal for Theory and Practice Management*, 18(68)/2013, pp. 69-79.

[5] Chen, H. (2007) “Mapping nanotechnology innovations and knowledge. Global and longitudinal patent and literature analysis”, https://ai.arizona.edu/sites/ai/files/hchen/04_mumbai-nano-mapping-dec2007.pdf (6.11.2018.)

[6] Baradar, R., Tajdaran, M., Musavi, S-M., Abedi, H. (2009) „Mapping the Iranian ISI papers on Nanoscience and Nanotechnology: a citation analysis approach“, *Malaysian Journal of Library & Information Science*, 14(3)/2009, pp. 95-107.

[7] Bajwa, R. S., Yaldram, K., Rafique, S. (2013) „A scientometric assessment of research output in nanoscience and nanotechnology: Pakistan perspective“, *Scientometrics*, 94(1)/2013, pp. 333-342.

[8] Ezema, C. I., Ogbobe, P. O., Omah, A. D. (2014) „Initiatives and strategies for development of nanotechnology in nations: a lesson for Africa and other least developed countries“, *Nanoscale Research Letters*, 9(1): 133.

[9] Milanović, M. V., Bučalina Matić, A., Golubović, M. (2016) „Analiza naučnih istraživanja u nano-tehnologiji“, *Megatrend revija*, 13(2)/2016, pp. 119-131.

[10] Arora, S. K., Youtie, J., Carley, S., Porter, A. L., Shapira, P. (2014) “Measuring the development of a common scientific lexicon in nanotechnology”, *Journal of Nanoparticle Research* 16(1): 2194.

[11] Nano Science, Technology and Industry Scoreboard, http://statnano.com/indicators/nano (25.10.2018.)

[12] Milanović, V., Njegić, K., Vrcelj, N. (2018) “Analiza konkurentske pozicije najaktivnijih i više aktivnih zemalja u nano-tehnologiji u periodu 2008-2017. godina”, Zbornik radova: *Liderstvo i menadžment: integrisane politike istraživanja i inovacija* - LIMEN 2018, u štampi, Fakultet za inženjerski menadžment – Beograd i dr. (Konferencija LIMEN 2018, 13.12.2018, Beograd)

[13] Alfeeli, B. *et al*. (2013) “Nanotechnology Development in the Arab World”, *Nanotechnology Reviews*, 2(3)/2013, pp. 359-377.

[14] Foladori, G. (2016) “Nanotechnology Public Policy in Latin America“, *Problemas del Desarrollo*, 47(186)/2016, html format, https://probdes.iiec.unam.mx/en/revistas/v47n186/body/v47n186a3_1.php (20.12.2018.)

[15] Gorjiara, T., Baldock, C. (2014) „Nanoscience and nanotechnology research publications: a comparison between Australia and the rest of the world“, *Scientometrics*, 100(1)/2014, pp. 121–148, doi 10.1007/s11192

[16] Observatory NANO Work (2011) *The European Nanotechnology Landscape Report*, http://www.nanotec.it/public/wp-content/uploads/2014/04/ObservatoryNano_European_Nanotechnology_Landscape_Report.pdf (21.12.2018.)

[17] Liu, L. (2009) „Overview“ (Chapter 1), 1-35, in: Liu Lerwen (ed.) *Emerging nanotechnology Power - Nanotechnology R&D and Business Trends in the Asia Pacific Rim*, Singapore, NanoGlobe Pte Ltd, World Scientific Publishing Co. Pte. Ltd., http://www.worldscientific.com/doi/suppl/10.1142/7224/suppl_file/7224_chap01.pdf (04.12.2018.)

[18] Nguyen, V. T., Pham, T. L. (2011) “Scientific output and its relationship to knowledge economy: an analysis of ASEAN countries”, *Scientometrics*, 89(1)/2011, pp. 107–117.

[19] Rajalingam, K. (2014) „A Case Study and Explorative Analysis of the Development of Nanotechnology in Malaysia, *Journal of Sustainable Development Studies*, 5(1)/2014, pp. 1-13.

[20] Liu, X. *et al*., (2009) „Trends for nanotechnology development in China, Russia, and India“, *J Nanopart Res*, 11(8)/2009, pp. 1845–1866, doi: 10.1007/s11051-009-9698-7

[21] Devereaux, Z., Mogoutov, A., Theoret, C. G., Allard, C. (2008) „Mapping Public Opinion and Discourse about Nanotechnology in Canada and OECD States“, Data analysis report - Phase II, https://nexalogy.com/wp-content/uploads/2012/07/MAPPING-NANOTECH-CANADA-2008-FINAL-TOTAL.pdf (2.11.2018.)

[22] Soldatenko, A. (2011) “Nanotechnology activities in the CEE region”, http://www.unitar.org/cwm/sites/unitar.org.cwm/files/Lodz%20Presentation%20(Nanotechnology%20activities%20in%20the%20CEE%20region).pdf (20.12.2018.)

[23] Kay, L., Shapira, P. (2009) „Developing nanotechnology in Latin America“, *J Nanopart Res,* 11(2)/2009, pp. 259-278, doi: 10.1007/s11051-008-9503-z.

[24] Hullmann, A. (2006) “The economic development of nanotechnology - An indicator based analysis”, European Commission, DG Research, Unit “Nano S&T - Convergent Science and Technologies, p.34, http://nanotechnology.cz/storage/nanoarticle_.pdf (22.12.2018.)

[25] Centar za obrazovne politike (2012) „Istraživačke politike, finansiranje i produkcija, Hrvatska, Srbije i Slovenija u uporednoj perspektivi“, 140 strana, http://www.cep.edu.rs/public/Istrazivacke_politike_-_finansiranje_i_produkcija.pdf (14.12.2018.)

[26] Foladori, G. (2006) “Nanotechnology in Latin America at the crossroads”, *Nanotechnology law & business*, 3(2)/2006, pp. 206-216, https://www.estudiosdeldesarrollo.mx/administracion/docentes/documentos_personales/193983_2_International_138%5b1%5d.pdf (21.12.2018.)

NEZADOVOLJSTVO KAO OBLIK POSLIJEKUPOVNOG VREDNOVANJA I RAZVIJANJA ODNOSA SA POTROŠAČIMA

DISSATISFACTION AS A FORM OF AFTER PURCHASE VALUATION AND DEVELOPMENT OF THE RELATIONSHIP WITH CONSUMERS

Marina Guzovski[1]
Mirjana Nedović[2]
Katarina Vučko[3]

DOI: https://doi.org/10.31410/EMAN.2019.531

Sažetak: *Donošenje odluke o kupovini za potrošača je važan proces koji uključuje niz pod procesa od spoznaje potrebe, traženja potrebnih informacija, vrednovanja alternativa na temelju prikupljenih informacija (izbora) i same kupovine određenog proizvoda ili korištenja određene usluge. U samom procesu donošenja odluke o kupovini potrošač formira svoja očekivanja koja u poslijekupovnom procesu kao posljednjoj fazi kupovnog procesa vrednuje te iskazuje svoje zadovoljstvo odnosno nezadovoljstvo odabirom između svih ostalih alternativa koje je imao na izboru. Poslijekupovna disonanca predstavlja razliku između potrošačeva očekivanja i odabira u procesu kupovine. Ukoliko je razlika veća u samom poslijekupovnom procesu javlja se nezadovoljstvo koje kupac iskazuje kroz negativnu komunikaciju, odustajanje od idućih kupnji ili reklamacije.*

Kao odgovor na potrošačeve reakcije na nezadovoljstvo, a u cilju zadržavanja postojećih potrošača i održavanja lojalnosti, poduzeća koriste razne marketing strategije i tehnike kao što su: individualizacija marketinga, razvijanje odnosa sa potrošačima, stvaranje baza podataka o očekivanjima odnosno povratnih informacija o obilježjima proizvoda, informacije o korištenju proizvoda kao i garancije i drugo. Primjena odgovarajuće marketing strategije u poslijekupovnom razdoblju u obliku informacija i pomoći, primjeni i načinu korištenja kupljenog proizvoda, o garancijama, dodatnim uslugama uz kupljeni proizvod samo su neki od načina povećanja zadovoljstva potrošača.

U radu su prikazani rezultati istraživanja o potrošačevim reakcijama na nezadovoljstvo (oblici, učestalost iskazivanja i drugo) prema prodavaču, proizvođaču ili nekoj drugoj pravnoj instituciji te uspješnosti pretvaranja nezadovoljstva u zadovoljstvo i zadržavanja potrošača.

Ključne riječi: *ponašanje potrošača, nezadovoljstvo, poslijekupovno vrednovanje, zadržavanje potrošača, marketing*

Abstract: *Making a decision about buying for a consumer is an important process that involves a variety of cognition from the perception of the need, the search for the necessary information, the valuation of alternatives based on the collected information (choice) and the purchase of a particular product or use of a particular service. In the process of making a purchase decision, the consumer shapes his expectations that he values in the post buying process as the final stage of the buying process and expresses his / her satisfaction and discontent with choosing from all the alternatives he has had in his choice. Reciprocal dissonance represents the difference between consumer expectations and choices in the buying process. If the difference is greater in the post-sales process itself, there is a dissatisfaction expressed by the customer through negative communication, abandonment of subsequent purchases or reclamation.*

---

[1] Veleučilište „Lavoslav Ružička“ u Vukovaru, Županijska 50, 32 000 Vukovar, Republika Hrvatska

[2] Veleučilište „Lavoslav Ružička“ u Vukovaru, Županijska 50, 32 000 Vukovar, Republika Hrvatska

[3] Studentica preddiplomskog stručnog Studija trgovine Veleučilišta „Lavoslav Ružička“ u Vukovaru, Županijska 50, 32 000 Vukovar, Republika Hrvatska

In response to consumer reactions to dissatisfaction, in order to retain existing consumers and maintain loyalty, companies use various marketing strategies and techniques such as: marketing individualization, developing consumer relationships, creating expectation databases or feedback on product features, information on use of products as well as guarantees and the like. Applying appropriate marketing strategies in the post-buying period in the form of information and assistance, the application and the way of using the purchased product, guarantees, and additional services to the purchased product are just some of the ways to increase consumer satisfaction.

The paper presents the results of consumer research on dissatisfaction (shapes, frequency of delivery and the like) to the seller, producer or other institution, and the success of turning dissatisfaction into customer satisfaction and retention.

Keywords: *consumer behaviour, dissatisfaction, post-market valuation, consumer retention, marketing*

1. UVODNO

Ponašanje potrošača obuhvaća nekoliko segmenata koji uključuju: identifikaciju čimbenika ponašanja potrošača, izučavanje djelovanja čimbenika koji kreiraju i utječu na ponašanje potrošača, proučavanje modela ponašanja potrošača, procese odlučivanja potrošača i procese donošenja odluke o kupovini, analizu i ispitivanje ponašanja potrošača i predviđanje ponašanja potrošača [1]. Proces ponašanja potrošača obuhvaća tri faze: fazu kupovine, fazu konzumiranja i fazu odlaganja proizvoda.

Fazi kupovine prethodi proces donošenja odluke o kupovini koji uključuje niz pod procesa od spoznaje potrebe, traženja potrebnih informacija, vrednovanja alternativa na temelju prikupljenih informacija (izbora) i same kupovine određenog proizvoda ili korištenja određene usluge. U fazi konzumiranja potrošač vrednuje svoju kupovinu između svih alternativa koje je mogao odabrati i iskazuje zadovoljstvo odnosno nezadovoljstvo svojim izborom. Zadovoljstvo odnosno nezadovoljstvo rezultat je potrošačeve reakcije u odnosu na postavljenja očekivanja. Zadovoljstvo i vrijednost za kupca iznimno su povezani jer je zadovoljstvo posljedica primljene vrijednosti u odnosu prema očekivanoj vrijednosti za kupca. Osnovna povezanost između zadovoljstva i vrijednosti je u tome da je zadovoljstvo mjera primljene vrijednosti [2].

Poslijekupovna disonanca predstavlja razliku između potrošačeva očekivanja i odabira u procesu kupovine. Ukoliko je razlika veća u samom poslijekupovnom procesu javlja se nezadovoljstvo koje kupac iskazuje kroz negativnu komunikaciju, odustajanje od idućih kupnji ili reklamacije. Faza odlaganja odnosi se na potrošačevu odluku što učiniti sa iskorištenim proizvodom ili nekim njegovim dijelom.

Primjena odgovarajuće marketing strategije u poslijekupovnom razdoblju u obliku informacija i pomoći, primjeni i načinu korištenja kupljenog proizvoda, o garancijama, dodatnim uslugama uz kupljeni proizvod samo su neki od načina povećanja zadovoljstva potrošača. Individualizaciju marketinga, razvijanje odnosa sa potrošačima, stvaranje baza podataka o očekivanjima odnosno povratnih informacija o obilježjima proizvoda, informacije o korištenju proizvoda, garancije i drugo poduzeća koriste kao marketing strategije i tehnike s ciljem zadržavanja postojećih potrošača i održavanja njihove lojalnosti.

2. REAKCIJE POTROŠAČA U POSLIJEKUPOVNOM RAZDOBLJU I VREDNOVANJU KUPOVNE ODLUKE

Proces prerade informacija je izuzetno značajan za strategiju komunikacijskih aktivnosti kao početnu fazu u procesu donošenja kupovne odluke. Budući da proces prerade informacija dobivenih iz okružja, a posebno posredstvom marketinških stimulansa ima za cilj stvoriti pozitivno mišljenje, stav i usmjeriti ponašanje potrošača, za marketinškog stručnjaka je od izuzetnog značaja upoznati proces potrošačeva prihvaćanja i prerade komunikacijskih sadržaja [3]. Na ponašanje potrošača i njihovu reakciju nakon kupovine utječe i niz čimbenika kao što su: psihološki procesi, društveni i osobni čimbenici, ali i stupanj potrošačeve uključenosti u sam proces donošenja odluke o kupovini.

Kupovine mogu biti u cijelosti ili djelomično planirane ili neplanirane (impulzivne) kupovine, ovisno o tome jesu li proizvod ili marka poznati ili ne. Na sam proces kupovine utječu i situacijski čimbenici kao što su: fizičko i društveno okružje, vremenska perspektiva, definiranje zadatka (namjera kupovine) i samo raspoloženje odnosno prethodna stanja potrošača. Nakon same kupovine proizvoda potrošač mora donijeti i odluke o instaliranju i korištenju proizvoda, odnosno odluke o proizvodima i uslugama povezanim s korištenjem kupljenog proizvoda. Svi navedeni čimbenici kao i odluke koje potrošač mora donijeti rezultiraju njegovim zadovoljstvom odnosno nezadovoljstvom nakon kupovine. Ukoliko je razlika između očekivanja i dobivenog u procesu kupovine veća, tada je kupac nezadovoljan kupovnom odlukom. Potrošač u poslijekupovnoj fazi vrednuje kupovinu kroz kognitivnu i afektivnu komponentu, što rezultira pozitivnim, jednostavnim ili negativnim potvrđivanjem dobivenog u odnosu na očekivanja, a iz kojeg proizlazi zadovoljstvo odnosno nezadovoljstvo obavljenom kupovinom.

Svoje nezadovoljstvo potrošač može iskazati na nekoliko načina: usmenom komunikacijom (širenjem svog negativnog iskustva), pritužbama i reklamacijama prema prodavatelju, proizvođaču ili prema institucijama (udrugama za zaštitu potrošača ili poduzimanje pravnih mjera). Pritužbama ili reklamacijama potrošač se obraća prodavatelju pisanim prigovorom koji je dužan otkloniti nedostatak na proizvodu, sniziti cijenu, vratiti novac ili zamijeniti proizvod. Na prigovor je prodavatelj dužan odgovoriti najkasnije u roku od 15 dana. U slučaju da prodavatelj ne odgovori u zakonskom roku potrošač se za zaštitu svojih prava nadalje može obratiti Tržišnoj inspekciji Ministarstva gospodarstva, poduzetništva i obrta. Pozitivnim rješavanjem pritužbe ili reklamacije pretvaranjem nezadovoljstva kupovinom u zadovoljstvo utječe se na ponovljene kupnje, lojalnost i odanost potrošača. Zadržavanje postojećih kupaca prioritetniji je zadatak od pridobivanja novih potrošača. Prvo, zato što je to jeftinije i drugo, što je gubitak potrošača u zrelom tržištu apsolutan gubitak tržišta bez mogućnosti naknade na drugom tržištu ili segmentu [4].

3. STVARANJE ZADOVOLJNIH POTROŠAČA I RAZVIJANJE ODNOSA SA POTROŠAČIMA

Razvijanje odnosa sa potrošačem i kontinuirani rad na njihovu zadovoljstvu, ponovljenim kupnjama, lojalnosti i odanosti aktivnosti su marketing strategija koja poduzeća u poslijekupovnom razdoblju primjenjuju kroz: osiguranje informacija i pomoći (uputa) vezanih za korištenje proizvoda kao i pružanje informacija o njegovoj primjeni i razvijanje sustava povratnih informacija o samom proizvodu, garancije kojima se potvrđuje kvaliteta proizvoda i prava potrošača u garantnom roku, ispunjavati očekivanja kupaca ili im osigurati vrijednost veću od očekivane kroz programe lojalnosti, dopunjavati osnovne usluge, prilagoditi odnose individualnom potrošaču,

cijene prilagoditi očekivanjima, razviti temeljnu uslugu koji će utjecati na stvaranje dugoročnih odnosa. Svaki kupac teži maksimalizaciji svoga zadovoljstva. On će se najčešće opredijeliti za onoga ponuđača koji mu nudi maksimalne koristi od proizvoda [5].

S obzirom da su potrošači različiti i imaju različite potrebe i želje, marketing strategije i aktivnosti poduzeća moraju biti usmjerene u stvaranje zadovoljstva potrošača i ispunjenje njihova očekivanja ili moraju nadmašiti njihova očekivanja kroz razvijanje marketinga odnosa sa potrošačima i stvaranja baza podataka o njihovim željama, potrebama, navikama, zahtjevima i slično. Poduzeća su svjesna da nije dovoljno samo privući kupca, već je od iznimne važnosti i zadržati ga. Troškovi osvajanja kupaca na zrelim tržištima su visoki, a nezadovoljni se kupci rijetko žale, već se jednostavno usmjeravaju drugom poduzeću sa sličnom ili istom ponudom proizvoda/usluga. Primjenom CRM-a povećava se prodaja po kupcu, povećava se lojalnost postojećih kupaca i poboljšava odnos s kupcima, jer se vodi računa o potrebama i željama kupaca, a komunikacija nije više samo u jednom smjeru već je dvosmjerna [6].

Izgrađivanje dugoročnih odnosa sa kupcima i utjecaj na njihovo ponašanje te korištenje jednog ili više oblika komunikacije kao što je oglašavanje, osobna prodaja, unapređenje prodaje, izravno oglašavanje i drugo postiže se sinergijski učinak putem integrirane marketing komunikacije koja utječe na unaprjeđenje poslovanja s ciljem komunikacije i razvijanja dugoročnih odnosa sa sadašnjim kupcima, ali i privlačenja potencijalnih kupaca, povećavajući time vrijednost za kupca poboljšanjem proizvoda i usluga.

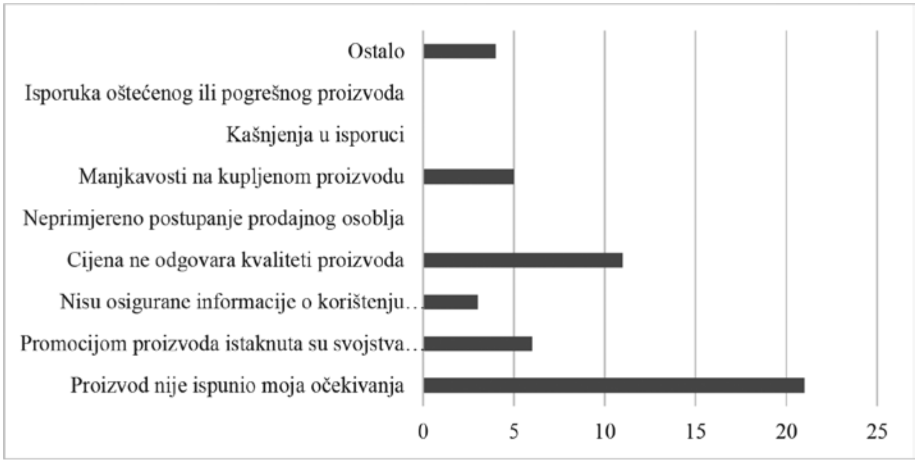
Marketing odnosa sa klijentima je ključ zadržavanja klijenata i uključuje izgradnju financijskih i društvenih prednosti, jednako kao i strukturalnih veza s klijentima. Sustavi marketinga odnosa s klijentima objedinjuju strategiju, IT i marketing odnosa pri isporuci vrijednosti klijentima i uzimaju ih u obzir pojedinačno. Tvrtke trebaju odlučiti na kojoj razini žele izgraditi odnose s različitim tržišnim segmentima i pojedinačnim klijentima, odabrati između razina kao što su osnovna, reaktivna, odgovorna i proaktivna do punog partnerstva. Koja je najbolja, ovisi o doživotnoj vrijednosti klijenta u odnosu na troškove koji su potrebni za privlačenje i zadržavanje tog klijenta [7].

4. REZULTATI ISTRAŽIVANJA

U provedenom istraživanju u razdoblju od 15. do 20. ožujka 2019. godine o iskazivanju potrošačevih reakcija na nezadovoljstvo (oblici, učestalost iskazivanja i drugo) prema prodavaču, proizvođaču ili nekoj drugoj pravnoj instituciji te uspješnosti pretvaranja nezadovoljstva u zadovoljstvo i zadržavanje potrošača sudjelovalo je 50 ispitanika slučajnim odabirom od kojih je 76% bilo ženskog, a 24% muškog spola. Većina ispitanika je starosti 41 do 55 godina (54%), slijede ispitanici starosti od 26 do 40 godina (32%), 56 do 65 godina (12%) i 66 i više godina svega 2% ispitanika. Prema bračnom statusu 76% ih je u braku, 14% ispitanika nije u braku, 6% ispitanika je udovac/udovica, a u istom postotku po 2% ispitanika svrstalo se u skupinu rastavljenih i ostalo. Kućanstva ispitanika broje 1 člana (4%), 2 člana (30%), 3 člana (28%), 4 člana (28%) i više od 4 člana (10%). Po obrazovanju 56% ispitanika je srednje stručne spreme, njih 20% je visoke stručne spreme ili sa završenim sveučilišnim studijem, slijede ispitanici sa završenim stručnim studijem ili višom stručnom spremom 18%, 4% ih je sa stupnjem magistra ili doktora znanosti i svega 2% ispitanika je sa osnovnom školom. 94% ispitanika je zaposleno, dok ih je 6 % nezaposleno. S obzirom na mjesečna primanja struktura zaposlenika je slijedeća: 68 % ispitanika ostvaruje primanja između 3.000,00 do 5.000,00 HRK, 16% ispitanika ostva-

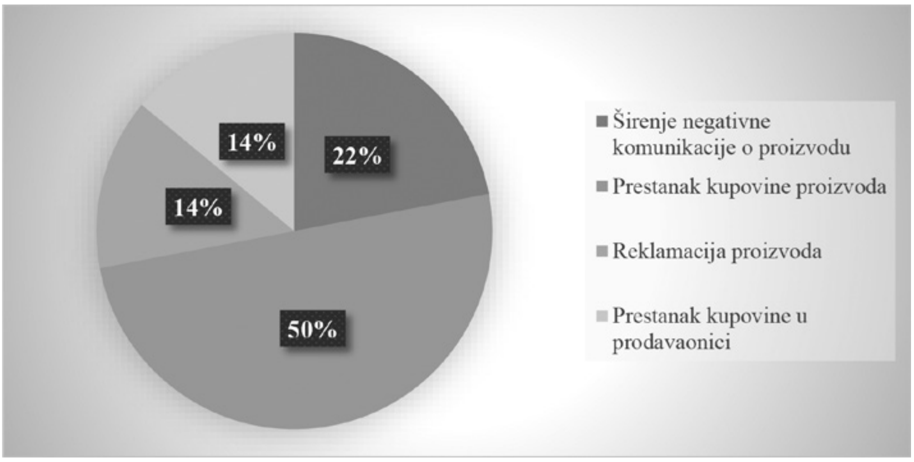
ruje primanja između 5.001,00 do 7.000,00 HRK, 8% ispitanika ostvaruje primanja između 7.001,00 do 9.000,00 HRK, 6% ispitanika ostvaruje primanja veća od 9.000,00 HRK, a svega 2% ispitanika primanja manja od 3.000,00 HRK.

Nadalje su ispitanici odgovarali na pitanja vezana uz poslijekupovno vrednovanje. Nezadovoljstvo nakon obavljene kupnje proizvoda ili usluge kod 42% ispitanika proisteklo je jer proizvod nije ispunio njihova očekivanja, 22% ispitanika smatralo je da cijena nije odgovarala kvaliteti proizvoda, 12% smatralo je da su promocijom istaknuta nerealna svojstva proizvoda, manjkavosti na proizvodu istaknulo je 10% ispitanika, a 6% ispitanika nije bilo zadovoljno informacijama o korištenju proizvoda. Struktura danih odgovora prikazana je Slikom 1.



Slika 1. Poslijekupovno vrednovanje – razlozi nezadovoljstva

U nastavku upitnika, ispitanici su odgovarali na pitanje na koji način su iskazali svoje nezadovoljstvo ukoliko su kupili proizvod koji nije ispunio njihova očekivanja. Struktura odgovora prikazana je Slikom 2.

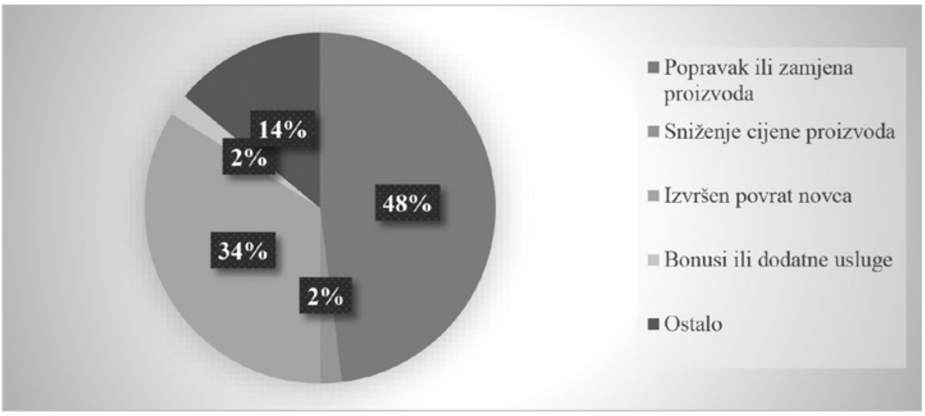


Slika 2. Načini iskazivanja nezadovoljstva obavljenom kupovinom

50% nezadovoljnih ispitanika prestalo je kupovati proizvod ili su prestali kupovati u prodavaonici gdje su bili nezadovoljni kupnjom (14%), dok je njih 22% širilo svoja negativna iskustva o proizvodu.

Svega 14% ispitanika koji su sudjelovali u istraživanju ulaže reklamacije ovisno o kupljenom proizvodu ili cijeni (njih 70%), a svaki puta kada su nezadovoljni određenom kupnjom 16% ispitanika. Nezadovoljstvo u obliku reklamacije iskazalo je prema prodavatelju 86% ispitanika,

prema proizvođaču 12% ispitanika i 2% ispitanika je reklamaciju uputilo prema pravnoj instituciji za zaštitu potrošača. U slučaju anketiranih ispitanika 84% uloženih reklamacija je pozitivno riješeno u zakonskom roku, 12% reklamacija je bilo odbijeno od strane prodavatelja, a na 4% reklamacija nije odgovoreno u zakonskom roku pa su se ispitanici obratili Tržišnoj inspekciji Ministarstva gospodarstva, poduzetništva i obrta. Reklamacije koje su prihvaćene riješene su na način da su ispitanici dobili novi proizvod ili popravak kupljenog (njih 48%), da je izvršen povrat novca u 34% slučajeva, a u istom postotku (2%) ispitanici su ostvarili dodatni bonus ili uslugu ili im je snižena cijena proizvoda. Za 14% ispitanika je reklamacija riješena na neki drugi način. Struktura odgovora prikazana je Slikom 3.



Slika 3. Načini rješavanja reklamacija

U nastavku anketnog upitnika bilo je navedeno 6 tvrdnji u kojima su na skali od 1 do 5 ispitanici iskazali svoj stupanj slaganja/neslaganja sa navedenom tvrdnjom gdje je 1 označavalo u potpunosti se ne slažem, a 5 u potpunosti se slažem sa navedenom tvrdnjom. Struktura odgovora na navedene tvrdnje prikazana je Tablicom 1.

Tablica 1. Struktura odgovora na postavljene tvrdnje

Tvrdnja	U potpunosti se ne slažem	Uglavnom se ne slažem	Niti se slažem, niti se ne slažem	Uglavnom se slažem	Potpuno se slažem
Redovito se informiram o svojim pravima koji me štite kao potrošača	18%	8%	50%	14%	10%
Prije kupnje proizvoda razmatram veći broj alternativa kako bih smanjio/la nezadovoljstvo kupovinom	4%	14%	24%	30%	28%
Svoje nezadovoljstvo ne iskazujem reklamacijama jer mi to oduzima vrijeme, promijenim proizvod ili prodavaonicu	12%	26%	30%	22%	10%
Prihvaćanje reklamacije moje nezadovoljstvo je pretvorilo u zadovoljstvo	4%	14%	28%	26%	28%
Nezadovoljstvo nije utjecalo na moju lojalnost prema određenom brandu ili prodavatelju	14%	6%	32%	38%	10%
Svoje zadovoljstvo podijelit ću sa ostalim potrošačima	6%	0%	26%	18%	50%

O svojim potrošačkim pravima ispitanici se najvećim dijelom informiraju putem interneta (60%), putem TV (8%), časopisa (4%), Udruga za zaštitu potrošača (14%) te kod prijatelja i rodbine na temelju njihovih iskustava (14%).

5. ZAKLJUČAK

Svoja očekivanja potrošači formiraju prije same kupovine u procesu donošenja odluke o kupnji, a koja se odnose na performanse proizvoda ili usluge, troškove i uloženi napor dobivanja proizvoda kao i društvene koristi koje korištenjem proizvoda može ostvariti. Poslijekupovna disonanca između potrošačeva očekivanja i odabira u procesu kupovine rezultira nezadovoljstvom ili zadovoljstvom odabirom. Promjenama u vrednovanju obilježja proizvoda, traženjem dodatnih informacija, promjenom stavova neki su od načina kojima se može utjecati na smanjenje poslijekupovne disonance odnosno na smanjenje nezadovoljstva obavljenom kupovinom. Iako nezadovoljni kupnjom jer im nisu ispunjena očekivanja ispitanici nisu poduzimali reklamacije (samo njih 14% izrazilo je nezadovoljstvo reklamacijom),već su u većini slučajeva prestali kupovati određeni proizvod ili širili negativnu komunikaciju o proizvodu, no ipak to nezadovoljstvo nije utjecalo na lojalnost prema određenom brendu ili prema prodavatelju (Tablica 1.) Oni koji su se odlučili na reklamaciju proizvoda ili usluge ona je riješena pozitivno i njihovo nezadovoljstvo je pretvoreno u zadovoljstvo. Odgovarajućim marketing strategijama za razvijanje odnosa sa potrošačima, zadržavanje potrošača, utjecaj na ponovljene kupnje, stvaranje odanih i zadovoljnih potrošača i drugo može se utjecati na smanjenje broja nezadovoljnih potrošača koji će prestati kupovati što direktno utječe na profitabilnost, ali i na troškove privlačenja novih kupaca.

LITERATURA

[1] Gutić, D., Barbir, V. (2009) *Ponašanje potrošača*, Fortuna graf, Makarska, str. 18.
[2] Vranešević, T. (2000) *Upravljanje zadovoljstvom klijenata*, Golden marketing, Zagreb, str. 193.
[3] Kesić, T. (2003) *Integrirana marketinška komunikacija –oglašavanje, unapređenje prodaje, Internet odnosi s javnošću, publicitet, osobna prodaja*, Opinio, Zagreb, str. 74.
[4] Kesić, T. (2006) *Ponašanje potrošača*, Opinio, Zagreb, str. 353
[5] Gutić, D., Barbir, V. (2009) *Ponašanje potrošača*, Fortuna graf, Makarska, str. 334.
[6] Vučemilović, V. (2015) *Prednosti strategijom upravljanja odnosom sa kupcima,* Zbornik radova Veleučilišta u Šibeniku, No. 3-4/2015, str. 119 - 125
[7] Kotler, P., Wong, V., Saunders, J. Armstrong, G. (2006) *Osnove marketinga*, Mate, Zagreb, str. 485.

ORGANIZACIJSKA S ERGONOMIJA V MANAGEMENTU TURISTIČNIH STORITEV PRI DOSEGANJU PSIHOSOCIALNE DOSTOPNOSTI GOSTA S POSEBNIMI POTREBAMI

ORGANIZATIONAL ERGONOMICS OF HOSPITALITY SERVICE MANAGEMENT TO REACH PSYCHOSOCIAL ACCESSIBILITY FOR GUESTS WITH SPECIAL NEEDS

Darija Cvikl[1]

DOI: https://doi.org/10.31410/EMAN.2019.539

Vsebina: *Predmetna raziskava predstavlja inovativni pristop k organizacijski ergonomiji gostinskih storitev v turističnem managementu. Prav tako pomaga h kreiranju dodane vrednosti pri doseganju zadovoljstva gostov s posebnimi potrebami, in sicer s preučevanjem specifičnih veščin, potrebnih za delo z gosto s posebnimi potrebami. Pričujoči prispevek ukazuje na dejstvo, da se zadovoljstvo gosta kot najvišja vrednota v turistični dejavnosti obravnava zelo selektivno, saj sektor ne zagotavlja psihosocialne dostopnosti za goste s posebnimi potrebami, ampak se celoten sektor trudi zadovoljiti le goste brez posebnih potreb. Namen opravljene študije je, da bi zaposlene v gostinskih obratih ozavestili in spodbudili h komuniciranju z gosti s posebnimi potrebami in premagali osnovne komunikacijske prepreke, kakor nalaga tudi etični kodeks WTO (1999), čl.7, ki zagovarja enakopravno pravico do turizma vsem, tudi osebam s posebnimi potrebami. Prispevek k stroki se kaže v predvsem v tem, da managementu gostinskih in turističnih storitev ponuja utemeljena in relevantna strokovna priporočila za strežbo gostov s posebnimi potrebami in odpravo komunikacijskih preprek, ki sicer vodijo do težav zadreg in neprijetnih situacij. Do danes je opravljenih veliko premalo raziskav na temo psihosocialne dostopnosti in zadovoljstva gostov s posebnimi potrebami v okviru dostopnega turizma. Poleg fizične in ekonomske dostopnosti ter dostopnosti do informacij je psihosocialna dostopnost še najmanj razvito področje dostopnega turizma, ki ga je potrebno šele dodobra raziskati. Metodologija dela je potekala na način, da je izdelan je vprašalnik za pridobivanje povratnih informacij od gostov s posebnimi potrebami. Obdelan je segment povabljenih gostov, turističnih in gostinskih delavcev, ki so z očali, ki simulirajo slepoto, tekom izobraževalnega usposabljanja bili postavljeni v vlogo slepega in slabovidnega gosta. V teoretičnem delu so podana dognanja v literaturi, medtem, ko je praktični del na osnovi metode opazovanja zajel izobraževalno usposabljanje, v katerem je enaintrideset (31) strokovnih delavcev iz hotelirskih in turističnih organizacij, z dolgoletnimi izkušnjami v strežbi, na recepciji, kuhinji, gospodinjstvu ipd., prevzelo vlogo slepega ali slabovidnega gosta, ki mu je postrežena večerja s tremi hodi. Interpretacijo strežbe je pri vsakem hodu spremljal strokovni komentar terapevtke za delo s slepimi in slabovidnimi gosti. Prav tako je bil ob koncu izvedbenega dela udeležencem dogodka podeljen priročnik oz. brošura za obravnavo slepih in slabovidnih gostov v turizmu in gostinstvu.*

Analiza rezultatov povratne informacije je pokazala, da je potreba po usposabljanju turistično-gostinskega osebja za delo z gosti s posebnimi potrebami izredno močna in da so specifike pri komunikaciji z gostom s posebnimi potrebami resnično in izredno pomembne, če želimo takšnega gosta kakovostno postreči. V sklepnem delu prispevka so podana priporočila za nadaljnje delo.

Ključne besede: *Dostopni turizem, gostje s posebnimi potrebami (GPP), psihosocialne potrebe, ergonomija strežbe gostinskih storitev.*

[1] Univerza na Primorskem, Fakulteta za turistične študije Turistica, Obala 11a, 6320 Portorož, Slovenija

Abstract: *This research represents an innovative approach to organizational ergonomics of hospitality services. It helps to create an added value in meeting the needs of guests with special needs by investigating the needed skills required in hospitality service management. This contribution points to the fact that the satisfaction of the guest, as the highest value in tourist activities is treated very selectively since the sector does not provide psychosocial accessibility for guests with special needs, but rather trying to satisfy only those tourists guests without special needs. The contribution to the hospitality service management is reflected in substantiated and relevant expert recommendations for special needs and the elimination of communication barriers, which very often lead to problems of embarrassment and unpleasant situations at both sides. The purpose of this study is to train employees in the tourism and hospitality industry and to encourage them to communicate with the guests with special needs in a proper way and overcoming the basic communication barriers, as also required by the Code of Ethics of the World Tourism Organization WTO (1999), Art. 7, which advocates the equal right to tourism for all, including people with special needs. Until today insufficient research has been carried out on the subject of psychosocial accessibility and satisfaction of guests with special needs within accessible tourism. In addition to physical and economic accessibility and access to information, psychosocial accessibility is the least developed area of accessible tourism, which needs to be explored well. In the theoretical part, the relevant literature has been examined, while the practical part based on the method of observation of educational training. A questionnaire was developed for obtaining feedback from guests with special needs. A survey was conducted among a segment of hospitality and tourism employees invited as guests and treated as blind. Training was carried out in form of served dinner in which thirty-one (31) professional staff from hotel and tourist organizations, with years of experience in the service, at the reception, kitchen, household etc., assumed the role of a blind or visually impaired guest. A three-course dinner was served. During each course, the service was accompanied by a professional commentary of special need therapist. Also, the brochure for the treatment of blind and partially sighted guests in tourism and catering was presented and given to participants of the event at the end of the implementation work. An analysis of the training feedback results showed the need for educational training of tourist and catering employees as well as very low psychosocial accessibility for the guests with special needs. Also, specifics in communicating with guests with special needs are various and truly extremely important if we want to provide such a guest with quality services. The final part of the paper provides recommendations for further work..*

Keywords: *accessible tourism, guests with special needs, psychosocial needs, ergonomy of of hospitality services.*

---

1. UVOD

Zadovoljstvo gosta je najvišja vrednota v turizmu. Nesprejemljivo je, da to vrednoto selektivno obravnavamo in zagotavljamo samo zadovoljevanje potreb gostov brez posebnih potreb. Zadovoljstvo gostov je vrednota, ki jo zasledujejo vse turistične, gostinske in hotelirske organizacije, ne glede na turistično zvrst [14]. Le redke gostinske organizacije ali hotelirji preučujejo ergonomijo in specifike organizacije strežbe zaradi zadovoljevanja potreb gostov s posebnimi potrebami (GPP). Preučevanje dejavnikov vpliva na zadovoljstva gosta je namenjeno ne samo ohranjanju obiska obstoječih gostov, ampak tudi pridobivanju novih, in sicer predvsem z organizacijskim prilagajanjem turističnih storitev po meri gosta na eni strani in z implementacijo učinkovitih politik, namenjenih ohranjanju zadovoljstva in zvestobe oziroma zagotavljanju zadovoljstva [12], [13], [18]. V ta na namen je potrebno najprej prepoznati, potem pa tudi predvideti ter ne nazadnje tudi ohraniti raven zadovoljevanja gostovih potreb in želja [7]. Ogromno raziskav je opravljenih na temo preučevanja kognitivnih izkušenj gosta, stališč in načel, ki vplivajo na njegove odločitve. A zelo malo ali skoraj nič ni opravljenih raziskav, ki bi preučevale specifike pri zadovoljevanju psihosocialnih potreb GPP (16) in uveljavljale ergonomijo gostinskih in hotelirskih storitev za GPP. V

zadnjem desetletju je dostopni turizem pridobil na veljavi v smislu prepoznavanja in uveljavljanja faktorjev, ki vplivajo na konkurenčnost dostopnega turizma [15], čeprav nekateri avtorji še vedno trdijo, da aktivno vključevanje GPP v turistično dejavnost predstavlja nerešen problem [12]. Zato je predmetna raziskava opravila eksperiment, v katerem je ocenila stopnjo ozaveščenosti udeležencev - gostincev in hotelirjev (predvsem strežnega osebja), pridobila njihovo oceno o potrebi po izvajanju usposabljanja gostincev za delo z GPP ter opravila tudi njihovo usposabljanje.

2. TEORETIČNA IZHODIŠČA

Dostopni turizem je novejša turistična zvrst, ki v zadnjih desetih letih doživlja precejšen razvoj. Izraz dostopni turizem [4], [5] ali turizem za vse [1] označuje turizem brez ovir. Namenjen je zadovoljevanju informacijskih, infrastrukturnih, ekonomskih in psihosocialnih potreb gostov s posebnimi potrebami [5]. Pri etičnih izhodiščih v poslovnem svetu, torej tudi v turistični dejavnosti, je potrebno vedno ravnati tudi v skladu s spoštovanjem temeljnih človekovih pravic, kot sta svoboda nediskriminatornost vseh [9], [8] kakor nalaga tudi etični kodeks WTO (1999), čl.7. V ciljno populacijo gostov in turistov, ki sodijo v dostopni turizem sodijo gibalno in oviralno prikrajšane osebe, osebe s psihičnimi in intelektualnimi motnjami, starostniki, ter obolel, ki zaradi rizičnih zdravstvenih vzrokov ali spolne usmerjenosti, vere ali ekonomskega položaja, v katerem se nahaja ne morejo dostopati do turizma [1], [2] [6] oziroma ne morejo zadovoljevati eno ali več zgoraj navedenih potreb. Samo v Evropi se delež oseb s posebnimi potrebami giblje okoli 15 %. [17), kar predstavlja tudi dokaj velik ekonomski prodajni potencial [17], v kolikor bi se zanje omogočila dostopnost, ki jim pripada. Sicer se ocenjuje, da slošno povpraševanje zajema 127,5 milijonov ljudi na svetu, kar predstalja 80. milijard evrov tržnega potenciala[2].Veliko slepih in invalidnih gostov[3] še vedno opusti misel na potovanje že samo zaradi števila over in nevšečnosti, ki bi jih spremljale na tej poti [19]. Prispevek se osredotoča na psihosocialno dostopnost in ergonomijo strežbe GPP. Psihosocialna dostopnost se ukvarja z zagotovitvijo kakovostnih storitev na način zadovoljevanja potreb gosta, ki je slep ali gluh ali kako drugače prikrajšan. Sem štejemo preučevanje specifike storitev za GPP, kot je na primer transfer gostov, delovanje recepcije, kakovost sobe, kakovost in način ter organizacija strežbe, kakovosti načrtovanja, oblikovanja in izvedbe zabave in animacije [7]. A v smislu dostopnosti navedenih storitev gostom s posebnimi potrebami, pa nobena od navedenih storitev niti približno ne zadovoljuje ravni, ki jo turistične in gostinske organizacije in hotelirji ponujajo gostom brez posebnih potreb. V skladu z osnovnimi principi prilagoditve človeka na delovne razmere mora gostinsko osebje že v osnovi načrtovati gostinski ambient (razsvetljavo, glasbo, interior, olifaktorne zaznave…), sprejem gosta, primernost prostorov za gibanje in prehodov za strežbo, prostor za kolena med zgornjo površino sedišča in spodnjo površino mize, dostope in mize za invalide [10]. Poleg navedenega, je potrebno tudi prilagoditi in strokovno usposobiti osnovne strokovne kvalitete strežnega osebja. Sem se štejejo korektna strežba, bogato znanje o jedeh in pijačah, jezikovno pravilna formulacija priporočil, prisrčen sprejem, variacija dekoracije in sprememba ambienta, kreativnost pri predstavitvi jedi, pripravljalna dela v strežbi, strežba in prodaja storitev (11]. Za vse navedeno je potrebno spoznati in opredeliti specifike tudi pri strežbi GPP za vsako rizično skupino posebej, da bi dosegli zadovoljitev psihosocialnih potreb GPP in njihovo zadovoljstvo[4].

---

2 Vir: https://www.slovenia.info/uploads/dokumenti/turisticni-produkti/Dostopni_turizem_predstavitev_15739.pdf

3 Po nepotrjenih podatkih ZSSS več kot 50% slepih izbere izolacijo.

4 V skladu z definicijo slovarja slovenskega knjižnega jezika – SSKJ, je zadovóljstvo -a s (ọ̑): 1. stanje zadovoljnega človeka; nav. mn., ekspr. kar vzbuja, povzroča tako stanje; in pod 2. pozitiven, odobravajoč odnos do koga, česa: zadovoljstvo z obstoječim; zadovoljstvo s samim seboj.

3. NAMEN IN CILJ TER FAZE RAZISKAVE

Namen izvedene raziskave je bil, da bi zaposlene v gostinskih obratih ozavestili in spodbudili h komuniciranju z gosti s posebnimi potrebami (gluhimi in naglušnimi, slepimi in slabovidnimi), tako, da bi premagali osnovne komunikacijske prepreke, ki vodijo do težav, zadreg in neprijetnih situacij. Torej, da bi preverili poznavanje specific pri obravnavi in strežbi GPP v gostinstvu in hotelirstvu. Postavljeno je bilo raziskovalno vprašanje: Ali je potrebno in zaželeno usposabljanje strežnega osebja za delo z GPP?

Poglavitni cilj projekta je bil ozavestiti specifike psihosocialne dostopnosti gostinskemu osebju in turističnim delavcem, ki jih osebe s posebnimi potrebami pogosto ne prejmejo zaradi predsodkov, predvsem pa nepoznavanja ustreznega načina dela s strani turističnih delavcev.

- **Cilj 1:** Preveriti ozaveščenost o dostopnosti glede zadovoljevanja posebnih potreb slepih in slabovidnih gostov med zaposlenimi v gostinstvu. Ta cilj je bil dosežen s pomočjo analitike rezultatov vprašalnika, s katerim se je preko lestvično zastavljenih vprašanj preverjala ozaveščenost gostinskih in turističnih delavcev.
- **Cilj 2:** Izvesti usposabljanje v smislu prepoznavanja osnovnih specific pri delu v strežbi z GPP. Na ta način skušati premagati nerazumevanje, probleme in zadrege pri delu z GPP.
- Na ta način povečati gostoljubnost in uresničiti 7.člen etičnega kodeksa WTO, ki zahteva enakopravno obravnavo vseh turistov in gostov.
- **Cilj 3:** Opredeliti in ukazati na osnovne komunikacijske ovire pri strežbi in s pomočjo izdelanega priročnika za delo z GPP razširiti pridobljeno znanje tudi ostalim zaposlenim v gostinstvu.

Raziskava je zajemala naslednje faze:

- Pregled literature na temo dostopnega turizma in zadovoljevanja specifičnih potreb gostov s posebnimi potrebamipri v gostinstvu in hotelirstvu s poudarkom na strežbi.
- Opredelitev raziskovalnega problema.
- Izvedeno usposabljanje ekipe študentov na Zvezi za slepe in slabovidne v LJubljani, ki so bili organizatorji projekta in izvedbeni tim.
- Izvedba dveh vaj v prisotnosti delovne terapeutke iz Društva za slepe in slabovidne Škofja Loka.

Določene so bile omejitve pri organizaciji in izvedbi projekta usposabljanja gostinskega osebja za delo z GPP. Področje obravnave in preučevanja specific je bilo na podlagi pridobljenih izkušenj zožano le na obravnavo slepih in slabovidnih gostov.

Dne 20. februarja 2019 je bilo izvedeno usposabljanje 31 udeležencev gostinskega in hotelirskega kontaktnega osebja. Povabljeni so bili vidnejši predstavniki hotelirstva in gostinstva v regiji, kot na primer: JGZ Brdo pri Kranju, Vila Pdvin, Kotel Kompas, Grand hotel Toplice, Rikli balance hotel, Eko hotel Bohinj in drugi. Vsi udeleženci usposabljanja so prejeli prevezo preko oči in se tako postavili v vlogo slepega gosta.

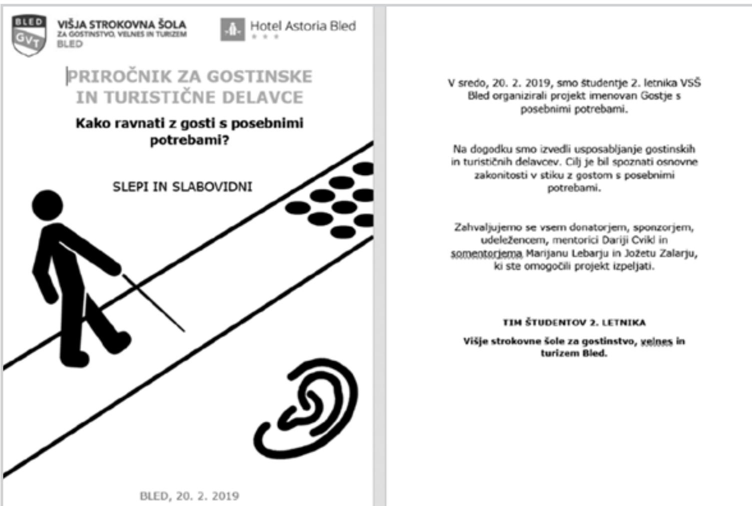
- Opravljano je bilo povratno informiranje udeležencev usposabljanja in sicer na osnovi izdelanega vprašalnika.
- Opravljena je analiza rezultatov anketiranja.
- Izdan je priročnik Kako ravnati z gosti s posebnimi potrebami s praktičnimi nasveti in podanimi osnovnimi specifikami. Vsak udeleženec usposabljanja je prejel priročnik ob koncu usposabljanja z namenom, da diseminira pridobljeno znanje tudi v svojem delovnem okolju.

Raziskava je predelala 18 prispevkov na temo dostopnega turizma in zadovoljevanja potreb gostov v gostinstvu in strežbi. Žal ni bilo mogoče najti literature, ki bi obravnavala organizacijsko prilagajanje pri oblikovanju storitev v strežbi GPP, razen sporadično omenjenih priprav miz in prehodov za invalide.

4. ANALIZA REZULTATOV

Analiza je zajela obdelavo rezultatov anketiranja. Izpolnjene ankete so bile naknadno vnešene in obdelane v spletno obliko. Preverjeno je bilo doseganje delnih ciljev in podan je odgovor na raziskovalno vprašanje.

- Cilj številka 1: Preveriti ozaveščenost o dostopnosti glede zadovoljevanja posebnih potreb slepih in slabovidnih gostov med zaposlenimi v gostinstvu. Ta cilj je bil dosežen s pomočjo analitike rezultatov vprašalnika, s katerim se je preko lestvično zastavljenih vprašanj preverjala ozaveščenost gostinskih in turističnih delavcev. Ta cilj je bil dosežen. Rezultati so pokazali, da je splošna ozaveščenost o specifiki zadovoljevanja potreb GPP izredno nizka, medtem, ko je potreba po usposabljanju na tem področju je izredno visoka. Kar 100% anketirancev je odgovorilo, da je usposabljanje pripomoglo k boljšemu razumevanju specifike dela z GPP, 90,9% jih je menilo, da je bilo usposabljanje za delo z GPP zelo koristno (ocena 5 na lestvici koristnosti od 1 do 5).
- Cilj številka 2: Usposabljanje je bilo izvedeno in prva postavka zastavljenega cilja 2 je bila dosežena. Premagovanje nerazumevanja, problemov in zadrege pri delu z GPP pa je bilo delno doseženo. V enodnevnem eksperimentu ni bilo moč preseči ali odpraviti vse zadrege in problemska vprašanja pri delu z GPP. Dostopni turizem namreč ni process asimilacije, temveč integracije [3], ki pa zahteva svoj čas.
- Cilj številka 3: je bil dosežen. Osnovne komunikacijske ovire in specifike za delo z GPP pri strežbi so bile prepoznane in s pomočjo vodenega usposabljanja tudi prikazane ob večerji s tremi hodi. Povabljeni gostje so bili vsi strokovni delavci v gostinstvu in hotelirstvu, ki so bili s prevezo postavljeni v vlogo slepega. Izdelan je tudi priročnik za delo z GPP, ki je prikazan na sliki 1, ki so ga vsi udeleženci večerje za slepe in slabovidne ob končanem usposabljanju tudi prejeli z namenom razširiti pridobljeno znanje tudi ostalim zaposlenim v gostinstvu.



Slika 1: Priročnik za gostinske in turistične delavce
- kako ravnati z gosti s posebnimi potrebami?

5. UGOTOVITVE IN PREDLOGI ZA IZBOLJŠAVE

Z analizo odgovorov na vprašalnik je ugotovljeno, da je v gostinstvu in hotelirstvu zelo potrebno in zaželeno usposabljanje strežnega osebja za delo z gosti s posebnimi potrebami, v konkretnem primeru s slepimi in slabovidnimi gosti. Rezultati izvedene raziskave kažejo izrazito odsotnost ergonomskega oblikovanja pri strežbi GPP v gostinstvu in hotelirstvu. Iz rezultatov preiskave je razvidno tudi skoraj popolno pomanjaknje poznavanja specifik pri strežbi gostov s posebnimi potrebami na eni strain in nepoznavanje psihosocialnih potreb GPP na drugi. Hkrati so udeleženci raziskave izkazali izjemno visok interes za spoznavanje tovrstnih specific oziroma interes za organizacijo prilagajanje strežbe GPP tako, da upoštevajo njihove potrebe in želje z namenom zagotavljanja njihovega zadovoljstva. Na podlagi ugotovitev raziskave je upravičeno trditi, da je potrebno sistematično raziskati specifike strežbe za vsako ciljno skupino GPP. V namen doseganja in prepoznavanja psihosomatskih potreb GPP v gostinstvu in hotelirstvu, je na osnovi navedenega potrebno preučiti in posvetiti upravljanju, organizaciji in ergonomiji strežbe v gostinstvu in hotelirstvu posebno pozornost.

LITERATURA

[1] Adamič, Lucija. (2009). Pripravljenost slovenskih turističnih podjetij za "Turizem za vse". Diplomsko delo, Univerza v Ljubljani.
[2] Agovino, Massimiliano; Casaccia, Mariaconcetta; Garofalo, Antonio; Marchesano, Katia. (2017). Tourism and disability in Italy. Limits and opportunities. Tourism Management Perspectives 23. pp. 58-67.
[3] Akinci, Zeki. (2013). Management Of Aceccible Tourism And Its Market In Turkey. International Journal of Business and Management Studies, CD-ROM. ISSN: 2158-1479 :: 2(2), pp. 413–426.
[4] Buhalis Dimitrios., Darcy Simon. (2011). Accessible tourism. Concepts and Issues, Aspects of tourism, Channel View Publications, Bristol.
[5] Bucik, Vasja. (2011). Možnosti razvoja turizma za osebe s posebnimi potrebami. Diplomsko delo. Univerza na primorskem.
[6] Darcy, Simon. (2010). Inherent complexity: Disability, accessible tourism and accommodation information preferences. Tourism Management 31. pp. 816–826.
[7] Dominici, Gandolfo in Guzzo, Rosa. (2010). Customer Satisfaction in the Hotel Industry: A Case Study from Sicily. International Journal of Marketing Studies. Vol. 2, No. 2; pp. 3-12.
[8] Dostopni turizem. (2012). Pridobljeno 09.04.2019 iz www povezave:
[9] https://www.slovenia.info/uploads/dokumenti/turisticni-produkti/Dostopni_turizem_predstavitev_15739.pdf
[10] Glas, Miroslav. (2006). Prirocnik za clane nadzornih svetov in upravnih odborov, poslovna etika. Združenje nadzornikov Slovenije. pp. 1-20.
[11] Lebar, Marijan. (2010). Strežba z organizacijo dela. Učbenik. Konzorcij višjih strokovnih šol za izvedbo projekta IMPLETUM. Založnik: Zavod IRC, Ljubljana.
[12] Mihelčič, Peter. (2010). Osnove strežbe. Učbenik. Konzorcij višjih strokovnih šol za izvedbo projekta IMPLETUM. Založnik: Zavod IRC, Ljubljana.
[13] Novikova, N.G., Kortunov, V.V., Krasnova, O.N., Zorina, N.M., Kireenkova, Z.A. (2015). A client with special needs in tourist services. Journal of Environmental Management and Tourism, (Volume VI, Winter), 2(12): 338-345. DOI: 10.14505/jemt.v6.2(12).06.
[14] Planina j. In Mihelič, T. (2002). Ekonomika turizma. Ljubljana. Ekonomska fakulteta.

[15] Toth, Geza in David, Lorant. (2010). Tourism and accessibility: An integrated approach. Applied Geography 30. pp. 666–677.
[16] Tutuncu, Ozkan. (2017). Investigating the accessibility factors affecting hotel satisfaction of people with physical disabilities. International Journal of Hospitality Management 65. pp. 29–36.
[17] Vila, Trinidad Domínguez, Darcy, Simon in Gonzalez, Elisa Alen. (2015). Competing for the disability tourism market - A comparative exploration of the factors of accessible tourism competitiveness in Spain and Australia Tourism Management 47. pp. 261-272.
[18] World Tourism Organisation (UNWTO). (2016). Tourism for All - promoting universal accessibility. Good Practices in the Accessible Tourism Supply Chain.
[19] Zajadacz, Alina. (2015). The contribution of the geography of disability to the development of accessible tourism. Tourism 25/1. DOI: 10.2478/tour-2014-0016 Tourism 2015, 25/1. pp- 19 – 27.
[20] ZSSS. Zveza slepih in slabovidnih Slovenije. Podatek pridobljen na usposabljanju pri pregledu poročil.

ODLUČIVANJE U SAVREMENIM USLOVIMA

THE DECISION MAKING IN CONTEMPORARY CONDITIONS

Slobodan N. Bracanović[1]

DOI: https://doi.org/10.31410/EMAN.2019.547

Sažetak: *Odlučivanje, jedna je od najtežih ljudskih aktivnosti, naročito u domenima upravljanja i rukovođenja tj. menadžmenta i preduzetništva. Neodlučnost, karakteristična je mogućnošću pogrešnih odluka. Oblast odlučivanja objektivno parcijalno je istražena.*

Ključne riječi: *Odlučivanje, determinante, oblici, faze, etape, volja, energija, upornost.*

Abstract: *Decision making is one of the most difficult human activities, especially in the domains of management and leadership, management and entrepreneurship. The decision-making area was partially investigated.*

Keywords: *Decision making, determinations, shapes, stages, phases, will, power, persistence.*

1. PRETHODNE ODREDNICE

Odlučivanje predstavlja sistemski i sistematski proces, tok, sa jasnim konstitutivnim glavnim činiocima i elementima. Uspješnost privređivanja, poslovanja, zasniva se jasno na pravovremenom, ispravnom, efikasnom i efektivnom, toku odlučivanja.

Upravljačko-rukovodeće strukture u poslovnim, privrednim i društvenim organizacijama, nalaze se u poziciji, položaju, moći da donose, realizuju vlastite odluke.

Pojedine odluke taktičke su i operativne, kao i rutinske (šablonizovane, ukalupljene) i jednostavnije ih je prostije, donositi i sprovoditi u pratičnom životu. Druge odluke su teže, kompleksnije, složenije i dugoročnije, strategijskih determinanti. Učinci, efekti, pojedinih odluka relativno su sigurni i izvjesni (jer apsolutna sigurnost realno ne postoji). Druge odluke veoma su riskantne, ili neizvjesne, maglovite. Postoje i umjerenija, prelazna stanja sa nižim rizikom, ili indiferentnošću. Svaki pojedinac (individua) nalazi se u stanjima i situacijama da donosi, ili je prinuđen donositi, odluke. [4] Naime; odlučivanje ne odnosi se jedino na upravljačko-rukovodeće kadrove u privrednim kolektivima. Strukture, na različitim nivoima organizacije i raznovrsnim funkcijama odlučuju, vršeći u ovome izbor između: dvije, ili više postojećih varijanti, ili određujućih alternativa. Odlučivanje oživotvoreno u donošenju odluka obuhvatan je tok i proces, a ne samo prosti akt izbora između dvije, ili više varijanti, ili alternativa. Neodlučnost stanje je haosa i anarhije. Ozbiljne (i studiozne) odluke zahtijevaju i pretpostavljaju sistematski tok; više koraka tj. iterativnih postupaka, procedura, tehnika; sa sagledavanjem i analiziranjem raznovrsnih podataka, informacija i činjenica, da bi se prevazišao i riješio kompleksan i aktuelni, gorući problem. Rešavanje i otklanjanje problema, dilema, nepoznanica, neizbježno prate udari teškoća, ometanja i ukupno „trenje“, kako u životu pojedinaca, tako i grupa, grupacija, timova i privredne i društvene organizacije.

[1] Ekonomski fakultet Priština, Kosovska Mitrovica

Odlučivanje, tj. donošenje odluka u privrednom, praktičnom životu, jedna je od najbitnijih, ili i na samom hijerarhijskom vrhu („piramide“, „drveta“) po važnosti, upravljačko-rukovodećih (menadžerskih) aktivnosti i djelatnosti; tj. poslova, zadataka i funkcija. [5] Imaju se u vidu raznovrsni činioci u „lancu“, ili „zamajcu“, kao i „spirali“ odlučivanja (preduzetnici, alokatori izvora i resursa, dobavljači, tržište, marketinški posrednici i dr.). Odvažnost, hrabrost, energičnost bitne su determinante. Upravljačko-rukovodeća (preduzetničko-menadžerska) struktura u procesu odlučivanja, kreira, donosi odluke u sferama, domenima i dometima: osmišljavanja, programiranja, koncepcija, projektovanja, planiranja, organizovanja, vođenja, kontrole i dr.

Sažeto i sintetički prikazano; u planiranju realizuju se imanentne, primjerene i prikladne odluke: izbor srednjoročnih i dugoročnih ciljeva organizacije; kreiranje strategija za ostvarivanje strateških ciljeva; odabir kratkoročnih ciljeva i zadataka; metodi i načini postizanja određenih i utvrđenih orijentira, ciljeva, zadataka i dr. Odnos plana i strategije je: uzročno-posljedični; plan može da slijedi iz strategije.

Organizovanje se bavi posebnim i specifičnim pitanjima i dilemama kao npr: odnosa i opsega podređenih i nadređenih u kolektivu; optimalnog nivoa centralizacije i (ili) decentralizacije; načina kreiranja obaveza, poslova i radnih zadataka; vremenima nužnosti preobražaja (transformacije) strukture, organizacije i dr.

Kod upravljačke funkcije vođenja indikativne su sljedeće odluke o: metodima postupanja sa zaposlenima nemotivisanima i nedovoljno motivisanima za rad; izborima najefikasnijeg i najefektivnijeg metoda rukovođenja u određenom stanju i situacijama; načinima na koji će pojedina promjena djelovati na produktivnost rada zaposlenog osoblja; modelima upravljanja protivrječnostima, konfliktnošću u određenom stanju i dr.

Kontrola obuhvata „lepezu“ (dijapazon) koraka kao npr: izbor aktivnosti i djelatnosti koje je nužno kontrolisati; način kontrole; pitanje značajnosti i praga značanosti devijacija i deformacija u radnom kolektivu; oblik upravljačkog i informacionog sistema u subjektima (korporacijama); međuljudske sfere i dr. [3; 161-162]

2. INDIKATIVNI USLOVI ODLUČIVANJA

Privredne i društvene organizacije egzistiraju u uslovima i okolnostima: sve intenzivnijih i dinamičnijih promjena; rasta kompleksnosti, povezanosti i složenosti poslovnog okruženja; pojačane rizičnosti, neizvjesnosti i nepoznanica kao ambijenta, sredine, za donošenje kvalitetnih i ujedno bržih odluka i sl. [6] Privredno, poslovno okruženje i relevantne činioce i elemente otežano je i kontinuirano teže predviđati naročito u dužem i dugom vremenskom horizontu. Ovi faktor su raznovrsni (socijalni, tehničko-tehnološki, ekonomski, etički i etnički, politički, pravni, kulturni, komparativni, konkurentski, marketinški, ekološki i sl). Kod privrednih tokova i relacija intenziviraju se rizici i maglovitosti u upoređivanju sa proteklim vremenima (kada ih je bilo neuporedivo manje). Novo doba je vrijeme invencija (zamisli, ideja) i inovacija (novina, pronalazaka) postupnih, ali i krupnih, jakih, probitačnih i „razarajućih“, kao i velikih, ili nepredvidivih, udara, potresa, lomova, „grčeva“, šokova.

Kod sigurnosti; postoji veoma velika mogućnost predvidljivosti, mada apsolutna i nepromjenljiva (metafizička) sigurnost u objektivnoj realnosti društveno-ekonomske stvarnosti i ne postoji. Rizičnost (riskantnost) podrazumijeva da je moguće sagledati, ocijeniti i procijeniti vjerovatnost jedino

pojedinih, određenih rezultata, efekata i ishoda. Neizvjesnost, maglovitost, pretpostavlja veoma i izrazito nepredvidivi tok dešavanja, upravno proporcionalno sa dužinom protoka vremenskog intervala. Nizak je nivo (stepen) neizvjesnosti i mala mogućnost donošenja pogrešne i promašene, odluke.

Situacija i stanje sigurnosti pretpostavlja da: poznajemo ciljeve i zadatke, posjedujemo tačne, egzaktne, kvalitetne, kvantitativno mjerljive, pouzdane činjenice i podatke o (ukupnosti, totalitetu), učincima svih varijanti i određujućih alternativa. Moguće je donošenje ispravne odluke od strane upravljača i rukovodilaca s obzirom da su poznati, bar u relativnom smislu, svi ishodi. Nosilac odlučivanja i donosilac odluke jeste: objektivan, racionalan, analitičan, svrsishodan, logičan. Umjeren je nivo neizvjesnosti, nepoznanica i mogućnosti realizovanja pogrešne, promašene, odluke.

Praktično; navodi se dalje, češće je stanje i situacija kada upravljačke strukture odlučivanja sučeljavaju se sa okolnostima rizičnosti i u mogućnostima su da odmjere, ocijene i procijene vjerovatnost određenih ishoda tj. efekata. Ishodi se očekju i predviđaju na bazi: podataka, informacija, činjenica, sposobnosti, ličnog iskustva. Posjedovanjem višeg opsega validnih informacija moguće je kompleksnije predvidjeti glavne rizike. Preuzimanje rizičnosti zahtijeva i intelektualnu hrabrost, a predstavlja i sposobnost procjenjivanja vjerovatnoće rezultata za svaku varijantu i (ili) alternativu. Visok je stepen neizvjesnosti i maglovitosti i mogućnosti donošenja, promašene odluke.

Stanje neizvjesnosti, ukazuje se, je ambijent kada nismo sigurni i veoma malo i nedovoljno poznajemo varijante i alternative i nijesmo u mogućnosti da ocijenimo rizike tj. vjerovatnoću ishoda svake od njih.. Upravljači i rukovodioci suočavaju se sa teško predvidim, ili i nepredvidivim činiocima organizacionog i sveukupnog okruženja. Isto tako, ne posjeduje se dovoljno kvalitetnih i selektovanih informacija neophodnih za procjenjivanje vjerovatnoće pojedinih događaja. Važno ekonomsko pitanje izbora, tj. u ovom kontekstu izbora varijante, ili alternative, vrši se sa limitiranim obimom informacija. Postoji i djelovanje psiholoških procesa i orijentira („mentalnih struktura“) nosilaca procesa odlučivanja. Upravljač koji je (sa ekonomskog filozofskog) stanovišta optimista, ili umjereniji, realni, optimista, koristiće promišljenost, intuiciju i lično iskustvo u izboru optimalnih, tj maksimalnih učinaka (od maksimalno mogućih). Pesimista će izabrati minimalno (ili najviše od minimalno mogućeg). Realista će se opredjeljivati za izbor realno mogućeg (između većih ili manjih ekstrema).

Većina upravljačko-rukovodećih (direktorskih, menadžerskih) odluka donose se u okolnostima sredine i okruženja, veće ili manje nesigurnosti. Realnijim pristupom i modalitetima, upravljačka i preduzetnička struktura odlučivanja, utvrđuje, donosi odluke na bazi modela „limitirane racionalnosti“ i realizuju se odluke na prihvatljivim, podnošljivim, „trpeljivim“ i prikladnim varijantama i (ili) alternativama i sa isprepletanim relacijama. Prihvataju se rešenja dovoljno solidna, prema mogućnostima i „drugo najbolje rešenje“, tj. rešenje koje ne mora biti najbolje, prvo; mada lideri teže prvim rešenjima koja često nijesu i realno ostvariva. [3; 162-163]

Donošenje odluka može biti i pod jakim djelovanjem: organizacione, tehničke i poslovne kulture; unutrašnje poslovne politike; moći i pojave, fenomena uvažavanja prethodne odluke mada postoje indicije da odluka može biti pogrešna i promašena i u teškom i pogubnom smislu. Postoji često u praktičnom životu opredijeljenost za ranije, prethodno rešenje, umjesto traganja za savršenijim i novim varijantama i alternativama.

Indikativne su kombinacije: racionalnosti procesa kao i limitirane racionalnosti, sa intuitivnim metodom. Donošenje odluka na podlozi intuicije bazira se na: duhovnim sposobnostima; ku-

mulativnoj sposobnosti rasuđivanja i prosuđivanja; mentalnom poimanju i obrađivanju činjenica i podataka; kognitivnosti (znanju, iskustvu, prethodnom obučavanju i umijeću, opažanjima i dr.). Intuicija, u vezi je sa maštovitošću. Klasifikaciju problema i odluka moguće je vršiti na način postojanja: a) strukturiranih problema i programiranih odluka; b) nestruktuiranih problema i neprogramiranih odluka; v) parcijalno, struktuiranih problema i programiranih odluka.

Odlučivanje predstavlja tok, proces utvrđivanja, donošenja odluka za rešavanje, otklanjanje i prevazilaženje konkretnih (direktnih, indirektnih i povezanih), praktičnih, prepoznatljivih problema, „trenja“, smetnji (ometanja) i deformacija. Realno ne postoje laki, potpuno prosti, jednostavni problemi i „kočnice“, oscilacije, fluktuacije, devijacije. Problemi mogu biti jasni, poznati, jednostavniji za rešavanje i otklanjanje. Ovo su „strukturisani“ problemi koji se ponavljaju i mogu se rutinski, šablonski, kalupski i standardno („klasično“) rešavati odlukama koje spadaju u „programirane“ odluke. Naime; nije nužna indentifikacija i utvrđivanje kriterijuma i mjerila za donošenje odluka, ili evidencija mogućih rešenja. Programirana odluka postoji u vidovima: procedura, postupaka, pravila, smjernica, tehnika i dr. Ove odluke, odnose se na niže nivoe rukovođenja, odlučivanja u privrednoj i društvenoj organizaciji.

Problemi mogu biti sasvim novi i neobični, nepoznati, za koje postoje nepotpune, ili nejasne i nepouzdane informacije. Ovo su „nestrukturisani“ problemi i dileme za koje ne postoji prosto i jednostavno rešenje. Upravljači i rukovodioci, u ovom stanju i situacijama, orijentišu se na „neprogramirano“ odlučivanje i odluke. Ove odluke su jedinstvene, ne ponavljaju se rutinski, kalupski i modelski, ne podrazumijevaju jednoznačna i monolitna (uniformna) rešenja. Ove odluke povezane su sa: strategijama rasta i razvoja, prestruktuiranja, transformacija, koncetracija, organizacionog ustrojstva i privređivanja, kadrova i dr. Odnose se na najviše nivoe odlučivanja. [3; 164]

Praktično; češći su problemi između navedenih ekstremnih postojećih varijanti i određujućih alternativa. Odnose se na srednje nivoe odlučivanja u poslovnoj i šire društvenoj organizaciji. Srednja rešenja ne moraju biti i loša, pogubna u praksi. Prema navedenom, upravljači i rukovodioci nižih nivoa („menadžeri srednje i prve linije“) najčešće susrijeću se sa prepoznatljivim problemima i teškoćama koje se ponavljaju i baziraju se bitno na programirane odluke. Upravljačima višeg hijerarhijskog nivoa prenose se u nadležnost neprogramirane odluke, kompleksne, nestruktuirane. Upravljači viših nivoa prenose rutinske i šablonske odluke na svoje podređene i potčinjene, a bave se složenijim problemima šire poslovne politike i strategija razvoja. Saglasno ukazanom; programirane odluke su: prema vrsti problema struktuirane; nižeg upravljačkog nivoa; ponavljajuće učestalosti; realno raspoloživih podataka i informacija; jasnih, posebnih i specifičnih ciljeva; kratkog i kraćeg vremenskog gabarita za rešavanje; bazirane na tehnikama, postupcima, procedurama, pravilima. Neprogramirane odluke su: strukturisanih problema; viših i visokih upravljačkih nivoa; nove i neustaljene učestalosti; dvosmislenih i nepotpunih informacija; nedovoljno određenih i neodređenih ciljeva; relativno dugog vremenskog gabarita za otklanjanje; rešenja temeljenih na mišljenju, kreativnosti, nadahnutosti menadžerskih timova. Ovo su odluke o gradnji novih postrojenja, kapaciteta; razvoju novih proizvoda ili usluga; prodoru na nova tržišta; spajanju (fuziji); akviziciji i sl. [3; 165]

Kod, osnovnih, oblika odlučivanja imaju se u vidu kriterijumi klasifikacije.

Indikativni su i razni modeli i pristupi odlučivanja (utvrđivanja odluka). Razlikuju se glavni modeli: a) administrativni (opisni, deskriptivni); b) „klasični“ (normativni, racionalni); v) „neoklasični“ model. Ovim se ne iscrpljuje „lepeza“ načina.

Administrativni (opisni, deskriptivni) model prikazuje način stvarnog, realnog donošenja odluka od strane upravljača i rukovodioca (menadžera); a sa druge strane ne prikazuje se kako bi tok odlučivanja neophodno trebalo da funkcioniše. Srž modela je u deskripciji uslova i okolnosti, stanja i situacija, aktivnosti i ponašanja upravljača u kompleksnim, složenim, težim i teškim situacijama koje obuhvataju: više i visoke nepoznanice i maglovitosti; nestrukturirane probleme i neprogramirane odluke; nejasnoće, nepreciznosti i višesmislenosti. Bitni činioci ovog pristupa su: limitirana racionalnost i usvajanje prihvatljive varijante, ili pripadajuće alternative.

Klasični (normativni, racionalni) model bazira se na ekonomskim hipotezama o nelimitiranoj racionalnosti nosilaca odluka i traganju za putevima optimiziranja tj. maksimiziranja ekonomskih učinaka („performansi“) privredne, ili društvene i državne (javne) organizacije. Naime; klasični modelski pristup iskazuje aktivnosti i mjere koje nužno treba da preduzima upravljač (i menadžer) kako bi se utvrdila optimalna, racionalna, svrsishodna, ekonomična, prikladna odluka. Ovaj metod odlučivanja (donošenja odluka) rastućeg je značaja usljed razvijanja, poboljšavanja i primjenjivanja kvantitativnih metoda, procedura, postupaka i tehnika u toku odlučivanja (kao npr: linearno programiranje, operaciona istraživanja, analiziranje prelomne tačke i „praga rentabiliteta“, ostali ekonomski principi, „spektar“, „dijapazon“, „matrica“ platežnih aktivnosti i sl.). [3; 165] Praktično, teško je dostići potpunu racionalnost. „Neoklasični“ (umjereniji) model donošenja odluka temelji se na saznanju o mogućoj prihvatljivoj racionalnosti i traganju za pravcima poboljšavanja i kvalitetnijih mogućih ekonomskih učinaka (performansi) određenog vida organizacije. Riječ je o manje ekstremnim zahtjevima u vrlo kompleksnim uslovima rada i privređivanja.

Razumsko, racionalno, odlučivanje podrazumijeva procese sistemskih i sistematskih determinanti; tokom kojih upravljači i rukovodioci sagledavaju: probleme, ocjenjuju i procjenjuju primjerene varijante i alternative i vrše izbor optimalnih, ili prihvatljivih pravaca i rešenja, kojim postižu veće, ili i optimalne efekte, u privrednim, javnim i društvenim organizacijama. Postoji teoretski, opšti model racionalnog odlučivanja sa više indikativnih pristupa, faza i etapa (iteracija). [3; 166]

Istraživanje i analiza uslova, okolnosti, stanja i situacija, pretpostavlja: utvrđivanje i postavljanje problema; preispitivanje uzroka problema cilja (ili više ciljeva) koji se teži (ili teže) ostvarivati odlukom. Slijede relevantne: varijante i određujuće alternative puteva i smjerova rešavanja; kristalisanja svih sagledivih mogućnosti (sada još uvijem bez donošenja ocjene i procjene, „dijagnoze“). Naredna faza je procjena i ocjena varijanti i alternativa i izbor najbolje, ili najprihvatljivije šanse i mogućnosti. Završna faza i (ili) etapa jeste: planiranje realizacije (implementacija); primjenjivanje programa i plana (kao akta planiranja) i nadgledanje ostvarivosti odluke (kao rezultata odlučivanja) i neophodnih pratećih izmjena, dopuna i promjena. Odlučivanje, jedna je od najtežih aktivnosti, u poslovanju i praktičnom životu.

1) Razrađenijim smislom; analitički tok i proces odlučivanja i donošenja odluka započinje indentifikacijom problema. Konkretnije; problem se manifestuje kada postoji nausklađenost između: željenog i postojećeg stanja (tj. ciljnog stremljenja i elemenata sa kojima se sučeljavamo realno u stvarnosti). Viđenje stanja i situacije kao problema, ili kao šanse, mogućnosti (ili i povezano), determinisano je: iskustvom, potrebama, osobinama ličnosti, intuicijom i dr. Blagovremeno uočavanje problema, ili mogućnosti, pretpostavlja kontinuirano posmatranje: internog, eksternog i povezanog okruženja. Indikativna su raznovrsna: formalna, neformalna i mješovita ishodišta informacija o bližem, ili i daljem okruženju, ambijentu (informacioni sistemi, računovodstveno-knjigovodstveni elaborati, naučno-stručni časopisi, ostali poslovni subjekti i firme, informacione tehnologije i sl.). Prepoznavanje istinskih problema često je neizvjesno, maglovito usljed nekompleksnih, ili kontradiktornih podataka i informacija. Indikativni su uslovi (rela-

tivne) sigurnosti, rizičnosti i neizvjesnosti. 2) Kod kristalisanja stanja, situacija, istraživanja i analiziranja uzročnika; upravljači i rukovodioci vrlo često griješe kada odmah traže pravce i rešenja umjesto da određuju „dijagnozu" problema, dilema, posla i radnog zadatka, sa pronalaženjem prema mogućnostima dubljih ishodišta. Neophodno je sa svih mogućih aspekata rasvjetljavati: pitanja i dubioze, dejstva izmijenjene i novonastale situacije, vremena, mjesta i načina javljanja problema, rokova rešavanja i prevazilaženja i dr. „Dijagnoza" problema može se realizovati primjenom različitih metodoloških postupaka, kao npr.: sakupljanje i selektovanje relevantnih činjenica (o transformisanom, ili novonastalom problemu); logička analiza (traganja za uzročnicima, u uzročno-posljedičnim relacijama pojava, tj. uzroka i posljedice); verifikacija pretpostavki, hipoteza (pojava provjerava se ponavljanjem, rekonstrukcijom dešavanja, ili odgovarajućim eksperimentom); kvantitativna analiza (traganja za uzrocima primjenjivanjem prikladnih kvantitativnih modela i metoda); intuicija (nadahnuće, maštovitost, inventivnst i inovativnot, ingenioznost); iskustveni (empirijski) metod koji podrazumijeva traženje ishodišta na podlozi proteklih radnih, životnih, praktičnih iskustava; kvalitativna analiza (osvjetljavanje najvažnijih kvalitativnih svojstava i „prelaskom kvantiteta u kvalitet").

3) Utvrđuju se mjerila, kriterijumi i ponderi za odlučivanje. Kriterijumi odlučivanja su: norme, okviri i standardi na kojima se baziraju zaključivanja, sudovi, odluke. Rijetko se dešava da je samo jedan kriterijum dovoljan za donošenje odluke, jer je potrebna: motivisanost, energičnost, volja, razumijevanje, poznavanje (ljudi, tehničko-tehnoloških procesa, proizvoda i usluga i sl.), radno iskustvo, međuljudska (interpersonalna) umijeća i vještine i dr. Kada postoji više („spektar") primjerenih mjerila i kriterijuma, potrebno je utvrditi značaj svakog i odrediti pripadajuće pondere.

4) Posmatraju se prikladne varijante i relevantna alternativna rešenja i otklanjanja problema, koja mogu da budu standardna, klasična i očigledna; ali i kreativna, nadahnuta, inventivno-inovativna. Racionalno je, u konkretnom praktičnom životu, povezivati ove načine i metodološke pristupe. Ukoliko je problem i dilema važnija, utoliko više vremena neophodno je posvećivati osmišljavanju i kreaciji mogućih pravaca, smjerova, „putokaza", rešenja (kapaciteti, obim i asortiman proizvoda i usluga, tržište, lokacija i dr.). Problemi nižeg ranga značajnosti mogu se kraće i rutinski otklanjati. Dužina vremena zavisi upravo proporcionalno od značaja problema i teškoća.

5) Vrši se procjena i ocjena varijanti i alternativa. Svaku sagledivu varijantu i alternativu nužno je ocijeniti, determinisano raznim okolnostima: stepenom izvodljivosti; nivoom saturacije ranovrsnih potreba; objketivnih, realnih posljedica izgubljenih mogućnosti („oportunitetni troškovi, rashodi") i dr. Moguća rešenja mogu da „koče", sputaavju, blokiraju: neophodna enormna finansijska (novčana) sredstva; normativno-pravne zakonske prepreke, gabariti; materijalno-tehnički kapaciteti, ljudski i kadrovski („humani") potencijali; informacije i dr. Kod ocjene alternativa potrebno je imati i vidu elemente: da li je izvodljiva alternativa i da li je prihvatljiva, kao i da li su učinci pozitivni; a u suprotnom nužno je neizvodljiva rešenja otkloniti iz obuhvata naših sagledavanja. Alternative je nužno istraživati i analizirati kako bi se sagledalo u kom nivou i stepenu odgovaraju zahtjevima konkretnog stanja i situacija. Sagledavaju se npr. mogućnosti proširenja: kapaciteta proizvodnje i (ili) usluga, tržišta i dr. Procjenjuju se i same posljedice; naime: do kog stepena ove alternative djeluju na ostale segmente organizacije i koji materijalni, nematerijalni i povezani troškovi i rashodi ostvaruju se ovim uticajem. Upravljači i rukovodioci neophodno treba da uključe u račun i nivo troškova, rashoda, svakog od poslovnih efekata.

6) Izbor rešenja, utvrđivanje odluke koja dovodi do najefikasnijih učinaka zasniva se na solidnom shvatanju i razumijevanju, kvalitetnih efekata aktivnosti i djelatnosti. Imaju se u vidu okviri (gabariti) budžetskih sredstava i (ili) vrijeme tj. najbrže ostvarivanje. Ali najbrže ne po-

drazumijeva i najbolje ostvarivanje! Kod imidža („brenda“) utemeljenom na kvalitetu i visokom dizajnu proizvoda, nužan je trošak novca i vremena da se analizom donese optimalna odluka. Vrijeme je bitan ekonomski faktor. Najpovoljnija varijanta i alternativa jeste: koja najviše je adekvatna cjelokupnim vrijednostima, ciljevima i zadacima privredne i društvene organizacije (preduzeća, kompanije, ustanove i dr.), kao i postiže se viši i maksimalnih učinaka sa angažovanjem i trošenjem nižih i minimuma sredstava i ovo odgovara principu efikasnosti („minimaksa“). Često; međutim ne valorizuje se najpovoljnije već drugo najbolje, ili i sljedeće prihvatljivo rešenje i pravac, smjer; u složenim i kompleksnim uslovima privređivanja. Upravljači i rukovodioci (menadžeri raznih nivoa) u mogućnostima su da izaberu putokaze i rešenja sa manje i minimumom rizika i nesigurnosti oslanjajući se na intuiciju (maštovitost, nadarenost) i životno i profesionalno iskustvo. Ali; događa se i da riskantniji pravci donose i višu dobit, profit (stopu i masu) kao npr. kod: primijenjenih tehnika, tehnologija, neistraženih tržišta i sl. Izbor je ekonomski jedno od najvažnijih pitanja i dilema. Izbor varijante i alternative uslovljen je osobinama menadžera (u novijim uslovima govori se o „trenerima“ sa višim stepenom autonomije, a ne o „menadžerima“) i spremnostima da se prihvate varijante sa višim stepenom riskantnosti (rizika). Alternative su sklonosti nižem i skromnom ali i sigurnijem profitu (dobiti).

7) Utvrđena odluka sprovodi se u praktičnom životu. Odluka ukoliko se ne realizuje u praksi, iako je i najbolja, nema svog racionalnog smisla. Završna uspješnost odluke determinisana je mogućnostima transformacije u aktivnosti, akcije. Odluka može i da se ne realizuje jer se ne posjeduje dovoljno: znanja, energije i (ili) finansijskih sredstava kako bi se motivisali (drugi) na aktivnosti (akcije). Menadžeri realizuju praktično odluke posredovanjem drugih ljudi (a ne sami) tako da je neophodno raspolaganje sposobnostima i vještinama: komunikacije, motivacije, liderstva; da bi se odluka oživotvorila. Uspjeh je „podići“ privredni subjekat (preduzeće) kad se nalazi na ivici propasti, provalije (bankrotiranja, stečaja, ili likvidacije). Bitna je, jasno, sposobnost sprovođenja, implementacije odluka. Nužno je često u poslovnoj praksi: osmišljavati, kreirati i dizajnirati savršenije i nove proizvode i (ili) usluge; procese, modele i metode. Svrsishodno je postojanje vizija dugoročnih horizonata i ljudi koji su sljedbenici ovih vizija i spremni i voljni da realizuju odluke glavnog upravljača.

8) Ocjena i procjena rezultata, efekata odlučivanja (sa povratnim podacima i informacijama) faza je i etapa u kojoj rukovodilac nužno treba da je upoznat: u kom stepenu planirana i donesena odluka je praktično ostvarena i da li je uspješna, efikasna i efektivna u realizaciji utvrđenih stremljenja, ciljeva, orijentira i zadataka. Proces odlučivanja je kontinuiran tok koji se ne okončava i nakon jednog započinje novi ciklus (talas) odlučivanja. Odlučivanje (i rezultat tj. odluka) može da bude: uspješno, ali i manje uspješno, ili i neupješno, pogrešno, promašeno (ili i teže i pogubno, katastrofalno promašeno) i da generiše izmijenjene i nove probleme, dileme i teškoće, „trenje“. Ove okolnosti i uslovi efektuiraju se u: novim istraživanjima i analizama; sagledavanjima i izboru (cirkulišućih, relevantnih i selektovanih) varijanti i (ili) alternativa. Ponekad, prihvatljiva rešenja nastaju na način procjenjivanja vrijednosti učinaka i sprovođenja, izvršavanja, primjene (implementacije) nekoliko rešenja (jedno za drugim, sukcesivno). Postoje: ekstremna i središnja rešenja (srednja, mogu biti najbolja).

9) Učenje na greškama. Istovjetna greška, promašaj, ne ponavlja se i sljedeći put. Ali u praksi događa se da ista greška ponovi dva, ili i više puta. Indikativan je i mogući metodološki postupak: probe i grešaka da bi se u konačnome kristalisalo najpovoljnije, ili prihvatljivo i bolje rešenje. Riječ je često o još uvijek nepoznatim i neistraženim maglovitim sferama rada, proizvodnje i (ili) usluga, tržišta. [3; 166-169]

Racionalnim procesom odlučivanja donose se odluke. Bitne su u ovome i opažanja, percepcije i ukusi, utisci, potrošača; koji se, dijalektički, najčešće, transformišu protokom vremena (u najvećoj mjeri, nijesu nepromjenljivi, matafizički). Borba je za povećavanje tržišnog učešća. Analiziraju se nove varijante i alternative, ili i više njih. Pored materijalnih, postoji i nematerijalna, kao i povezana strana pitanja, problema i dilema. Lojalnost „brendu" npr., kvantitativno nemjerljiva je kategorija. Postoji i emotivna vezanost potrošača za raniji, stari proizvod i (ili) uslugu (i emocije su nezaobilazni dio ličnosti). Finansijska sredstva utrošena na marketinške aktivnosti tj. posebno propagandu i reklamu, dešava se, da nijesu u mogućnostima da transformišu dotadašnje i ukorijenjene navike potrošača. Indikativne su hrabre odluke koje su u najvećoj mjeri veoma riskantne i neizvjesne. Ovo potvrđuje da je bitna lojalnost potrošača kao nematerijalno obilježje, veličina, kategorija. Moguće je i postojanje starog proizvoda i (ili) usluge, samo, pojavno, površno, pod novim nazivom, koji ne mijenja suštinu, (srž) tj. unutrašnju, kvalitativnu (dubioznu) stranu proizvoda i (ili) usluga. Kod potrošačkog društva izuzetno i izrazito važna je materijalna i finansijska (novčana) strana. Ali, u pojedinim stanjima i situacijama, naročito posebnim i specifičnim, preovladava viša i nematerijalna sfera!

Determinante koje djeluju na donošenje i realizovanje odluka su višestrane: 1. individualni način razmišljanja (i „mentalne" psihološke strukture); 2. prevazilaženje nepreciznosti, nejasnoća i višesmislenosti; 3. hrabrost (intelektualna); 4. volja; 5. energičnost; 6. upornost; 7. korekcija pogrešaka, propusta i dr. Pojedine osobe kod selektovanja, raščlanjivanja i obrađivanja podataka i informacija su: racionalnije, logičnije, svrsishodnije; druge kreativnije, maštovitije, inovativnije; dok pojedine višeg su komparativnog udjela emocionalnih odrednica. Bitno je snalaženje u neizvjesnim i „maglovitim" i riskantnim stanjima i situacijama. Isto tako; pojedinim licima neophodna je: usklađenost, procedura, postupak i red za minimiziranje nepoznanica, efikasnije i efektivnije odlučivanje. Druga lica snalažljivija su u vrlo: konfuznim stanjima („magli") i rade istodobno sa više informacija. Postoje i povezane odrednice i oblikuju se modaliteti donošenja odluka (matrica, oblika, formi i stilova).

Tolerisanje pogrešaka, dvosmislenosti, ili i višesmislenosti odlučivanja može biti: 1) visoko; 2) nisko; 3) umjereno. Obilježja, načini razmišljanja, rasuđivanja, prosuđivanja, pojedinaca mogu biti: a) racionalni (razumski); b) intuitivni (maštoviti); v) kao i mješoviti (kombinovani). Razlikujemo različite metode, modalitete (i stilove) u procesu odlučivanja i činu donošenja odluka. Osnovnom diobom, klasifikacijom indikativni su: a) direktivni; b) analitički; v) konceptualni; g) bihevioristički model (i stil). Postoje i drugi, izvedeni i povezani modaliteti. [3; 170]

A) Kod direktivnog (neposrednog) načina odlučivanja, ukazuje se, postoji niži i nizak nivo (stepen) tolerisanja na: nepreciznost, nejasnost, dvosmislenost, višesmislenost, nepotpunost (parcijalnost). Nosioci odlučivanja i odluka su: svjesni, racionalni (razumni), logični, efikasni i efektivni. Logičnost je bitna, ali nije i univerzalna, s obzirom da se događa da postoje kvalitetnije odluke i mimo sfere logike. Favorizuje se kraći, ili kratkoročni period; s bržim i brzim donošenjem odluka. Često, odluke se utvrđuju na bazi minimalnih podataka, informacija i činjenica. Isto tako, prisutno je i neadekvatno ocjenjivanje i procjenjivanje varijanti i alternativa. Pristup, primjenjuje se pored ostalih i kod uobičajenih (rutinskih), odluka; kao i kada postoje već utvrđeni faktori, činioci i elementi: pravila, propisi, postupci, procedure, tehnike. Primjenljiv je i u stanjima i situacijama kad je nužno donijeti brzu odluku i kada nema prostora za pravovremeno, postupno, sistematično prikupljanje i selekciju informacija i realizaciju svih faza i (ili) etapa u toku odlučivanja koje je neophodno obavljati za donošenje kvalitetne odluke. Brza odluka ne znači i po pravilu i nije, kvalitetna odluka!

B) Rešavanje, otklanjanje i prevazilaženje izrazito obuhvatnih, kompleksnih, složenih i isprepletanih problema i teškoća, navodi se, pretpostavlja primjenjivanje analitičkog modela (i stila) odlučivanja. Sveobuhvatan je metod (u relativnom smislu, jer univerzalno, apsolutno, totalno, sveobuhvatnost objektivno u realnosti stvarnosti i ne postoji) u toku odlučivanja i donošenja odluka. Odluka, donosi se postupno, iterativno fazno, etapno (korak po korak). Sačinjava tokove: sakupljanja i analiziranja mnogih informacija o problemima i njihovim ishodišnim uzročnicima; formiranje višeg obima (opsega) varijanti i alternativa i pravilni utemeljeni izbor adekvatnih pravaca i rešenja. Indikativne su pretpostavke: postojanje većeg i velikog opsega podataka; stručnost donosioca odluka; vrijeme dovoljno za analizu podataka, informacija i činjenica u oblikovanju alternativnih rešenja i izbor najboljeg, ili drugog rangiranog, odnosno i sljedećeg prihvatljivog rešenja. Pristup otklanjanja teškoća i dilema je sistematičan (nije nagao, kampanjski). Umanjuje se i prostor donošenja pogrešnih i promašenih odluka. Preduslovi su i korišćenje znatnih ljudskih i materijalno-finansijskih izvora, resursa i adekvatno vrijeme. Analiza podloga je oblikovanja, odluke.

V) Konceptualnim (koncepcijskim) metodom, stvarni procesi posmatraju se sa šireg aspekta i uključuje se, sagledava, veliki opseg varijanti i (ili) alternativa. Upravljači i rukovodioci komuniciraju sa saradnicima o učincima realizovanja svake od varijanti ili alternativa. Prilikom konačnog izbora nosioci odlučivanja svoje odluke baziraju i na: informacijama od saradnika i od kibernetskog, informacionog sistema selektovanja i obrađivanja podataka. Prethodni analitički stil se prihvata, a veći značaj i uloga pridaje se jasno širem i društvenom aspektu utvrđivanja i realizacije odluka. Konceptualni (i analitički) model, vrlo bitan je za nestrukturisane probleme i teškoće.

G) Bihevioristički metod i model, odrednica je intenziviranja saradnje sa ljudima, zaposlenima u organizaciji, kolektivu. Nosioci odlučivanja uglavnom prihvataju savjete i sugestije drugih; komuniciraju i mimoilaze (zaobilaze) konfliktnosti. Bitno je i da drugi (ostali) sudionici, akteri, uvažavaju donijete odluke. Ovaj metod obilježje je rukovodilaca, menadžera, koji su težišno manje orijentisani na radne zadatke, a više usmjereni ka ljudima (ali neophodno je i jedno, kao i drugo). Rukovodioci nastoje da: jačaju, intenziviraju komunikativnost sa zaposlenima (a ne da povećaju distancu); sagledaju njihove teškoće; po mogućnostima udovoljavaju težnjama, potrebama svakog radnika. [3;171]

Rezultati istraživanja i analiza pokazuju da grupno i timsko odlučivanje može da postigne kvalitetnije i (ili) efikasnije odluke u komparaciji sa individualnim odlukama, pojedinaca. Prvenstveno imaju se u vidu faze i etape svrsishodnog odlučivanja: 1. utvrđivanje problema; 2. iznalaženje varijanti i (ili) alternativa, u pravcima rešenja.

Neophodno je istaći da pojedinci, izrazito nadareni, nadahnuti i maštoviti, uključujući i izuzetno rijetke genijalce (čije postojanje priznajem), mogu biti uspješniji u kreiranju: vizija, ideja, ideja vodilja, ideala, horizonata, motivacije i konkretizovanih odluka. Međutim; sa opšteg stanovišta polazi se da efikasnije odlučivanje postiže se u grupama i (ili) timovima posebno multidisciplinarnim. Više je uzročnika efikasnijeg grupnog odlučivanja. Najvažniji su sljedeći: a) članovi indikativne grupe posjeduju raznovrsna znanja, saznanja, sposobnosti, vještine, umijeća, iskustva i mogu da osvjetljavaju probleme i teškoće sveobuhvatnije, iz različitih viđenja, uglova i horizonata i ove okolnosti podsticajni su činilac uspješnog obavljanja poslova i radnih zadataka i donošenja kvalitetnih odluka; b) grupne mogućnosti su u prikupljanju i obrađivanju neuporedivo više podataka i informacija u komparaciji sa mogućnostima pojedinaca (individualaca); v) ovim preduslovima grupe su u mogućnosti iznalaženja višeg opsega varijantnih i alternativnih pravaca i rešenja,

a utvrđivanje višeg (mada ne i prevelikog) broja alternativnih rešenja bitno je za podizanje nivoa efikasnosti i efektivnosti odluke; g) uključivanjem grupa u proces odlučivanja, članovi grupe će biti motivisaniji za realizovanje usvojenih odluka i smjerova (smjernica) rešenja; d) kompaktnost i homogenost strukture grupe doprinosi stabilnijim i čvršćim odlukama u kratkom i kraćem i posebno u dužem, ili dugom, vremenskom horizontu. [3; 172]

Grupno (ili i šire timsko) odlučivanje karakterišu i pojedini nedostaci, manjkavosti, kao npr: zahtijevana monolitnost i jednoobraznost; protok dužeg, ili dugog vremena u svrsi usklađivanja rasporeda članova grupa; sastanci i njihova učestalost i neproduktivnost; istrajavanje pojedinih članova grupe koja ovdje može se iskazati i kao „kočnica“ u grupnom (i grupacijskom) odlučivanju. Upravljači, rukovodioci, menadžeri i preduzetnici primjenjuju raznovrsne moguće, raspoložive tehnike (odnosno tehnologije).

1. Strukturisani konflikt; ili faktički, pravi konflikt, može doprinositi i povišenju nivoa (stepena) solidnosti grupnog odlučivanja. Riječ je o „kognitivnom“ konfliktu. Baziran je na različitostima u mišljenjima i stanovištima, koja su u domenima konkretnih dilema. Članovi grupe inicijalno nijesu u saglasnostima s obzirom da raspolažu različitim predznanjima, znanjima i iskustvima. Međutim voljni su i spremni da analiziraju, uporede i usklađuju međusobne razlike, kako bi pronašli optimalno, najbolje, drugo najbolje, ili prihvatljivo rešenje. Obrazlaganjem ideje svi članovi grupe u mogućnostima su da iznesu objektivne, realne i oštre kritičke ocjene. Procjenjuje se i ocjenjuje ideja (umjesto lica koje je kreiralo ovu ideju). Ukoliko se ideja eliminiše kao neoptimalna i neodrživa, razmatra se druga ideja pojedinog člana grupe. Pored „kognitivnog konflikta“, postoji i „afektivni konflikt“ koji se odnosi na osjećanja (emocije) koja mogu biti reperkusije ličnog (a ne poslovnog, profesionalnog) obilježja. Ovaj vid konflikta usmjeren je na pojedince (a ne na ideje i probleme). Često, praktično omogućava se prostor, ambijent („klima“) za efikasnije grupno odlučivanje, tj. „kognitivni konflikt“. Pojedinac, ili podgrupa, dolazi u stanja i situacije kritičkog pristupa i analize (kritičara). Indikativne su sljedeće iteracije (faze, etape): utvrđivanje mogućih rešenja; određivanje kritičara koji će preispitivati predloženu ideju, smjer, rešenje; prezentovanje kritike mogućeg rešenja glavnim nosiocima odlučivanja; prikupljanje, koncetracija dodajnih primjerenih podataka, informacija i činjenica; utvrđivanje da li će se prethodno prezentirano rešenje primijeniti, transformisati, ili eliminisati; realizovanje i kontrolisanje usvojene odluke; upoređivanje ostvarenih i očekivanih efekata i dr. Uobičajeno razumijevanje i tumačenje jeste da: protivrječnost, konfliktnost je nepovoljna. Međutim, „strukurisani konflikt“ dovodi do poželjnog „kognitivnog konflikta“, sa poboljšavanjem efikasnosti i efektivnosti grupnog odlučivanja, pri čemu se umanjuju i minimiziraju „afektivni konflikti“; imajući u vidu i mogućnost manifestovanja povezanih vidova konfliktnosti.

2. „Nominalna grupna tehnika“; započinje i okončava se na način da članovi (elementi) grupe pojedinačno upisuju, procjenjuju i ocjenjuju ideje, motive, probleme i akcije, ‚koje se raspodjeljuju u grupi (i sa grupom). Konkretnije; članovi grupe dejstvuju kao pojedinci i nakon isteka određenog perioda vođa (lider) grupe (ili grupacije i tima) zahtijeva od svakog člana da prikaže grupi sopstvene vizije i ideje (ideale) redosljedom, postupno, sukcesivno (jednu po jednu). Ideje, pišu se (na tabli, ili na drugi prikladni način), da su sasvim i jasno uočljive, vidljive. Prezentiranjem svih relevantnih, raspoloživih ideja, grupa rasvjetljava preimućstva i (ili) nepovoljnosti kreiranih ideja vodilja i konkretno ideja. Zatim, članovi grupe pojedinačno hijerarhijski rangiraju prezentirane ideje. Nakon ovog postupka, članovi obelodanjuju (čitaju) rangirane ideje i vrši se izbor ideje koja posjeduje najviši prosječan rang (nivo, stepen). Ova tehnika vrlo rasprostranjena je u savremenim, organizacijama raznih područja i sferi praktičnog rada.

3. Tehnika tv. „brejnstorming“; ukazuje se; poznata je i često primjenjivana grupna tehnika za rast kreativnosti i nadahnutosti u oblikovanju (velikog opsega) varijantno-alternativnih ideja u tokovima odlučivanja. Mataforično; moguće je metod označavati kao: kao „moždanu buru, oluja“ odnosno „davanje zamaha umu, mozgu“. Organizuje se kreativno sučeljavanje izabrane grupe stručnjaka (koji su prisutni na određenoj lokaciji, neposredno, „licem u lice“). Sakupljanje i koncetrisanje ideja vrši se prema načelu da su sve ideje prisutne i od aktera zahtijeva se maštovitost i promišljenost u sferama aktuelnih i akutnih poslova i radnih zadataka. Glavna pravila i smjernice su: poželjnije je postojanje više (ali ne eventualno i suviše) ideja; sve ideje u mogućnostima su prihvatanja bez obzira na spoljašnji izgled i formu, oblik; ideje drugih članova grupa (ili grupacije) neophodno je da se primjenjuju za osmišljavanje dodajnih ideja; kritička procjena i ocjena nije omogućena; vrši se izbor optimalne, ili prihvatljive odluke. Ova tehnika realizuje se u više nizova i serija i saglasnošću (kompromisom, konsenzusom) članova grupe donosi se najkvalitetnija ili održiva, odluka.

4. Posebna tehnika, tzv. elektronski brejnstorming, metod je i model grupnog odlučivanja i čijim gabaritima i sa informatičkom podrškom kreiraju se i prezentuju ideje, povezujući se sa vizijama i idejama (vodiljama) ostalih članova i iznalaženjima većeg obima alternativnih pravaca rešavanja. Postavlja se organizacijski i tehnološki raspored (sa sopstvenim i glavnim vidljivim računarom, drugim učesnicima, vođom sučeljavanja, ili pomoćnikm i zamjenikom). Inicijalnim korakom (iteracijom) učesnici anonimno izlažu koliko je moguće više ideja. Drugom iteracijom ideje ispravnije i potpunije se formulišu, dijele, klasifikuju (otklanjajući ponavljajuće činioce, faze i etape). Trećim korakom sistematizovane ideje rangiraju se prema kvalitetu, solidnosti. Četvrti korak podrazumijeva sprovođenje niza postupaka i procedura; postizanje najoptimalnijeg, ili adekvatnog redosljeda u svrsi realizovanja procesa i naznačavanja odgovornih i ovlašćenih lica za pojedine iteracije, aktivnosti i djelatnosti. Sve faze, etape, iteracije, ostvaruju se podrškom računara (i odgovarajućeg softvera). Ovim modelom uklanjaju se manjkavosti prethodnog („klasičnog“ postupka, „brejnstorminga“) povezano sa produktivnošću, efikasnošću i efektivnošću zamisli (ideja se unosi u računar bez reda čekanja za manifestaciju kreatora ideje). Otklanja se i bojazan (strah) od ocjenjivanja ideje drugih članova grupe, ili šireg tima). Osigurava se, jasno, anonimnost.

5. „Delfi metod“, izgrađivan je u cilju i svrsi psihološkog („mentalnog“) prevazilaženja posljedičnog učinka grupnog rada tj. neposredno („licem u lice“). Prvi korak pretpostavlja formiranje članova ekspertske grupe (tzv. „panela“) koja raspolaže pogodnostima (bez nužnosti nalaženja pripadnika na jednom mjestu, lokaciji). Drugim korakom sačinjava se dokumenat (upitnik) za stručnjake (sa nizom postavljenih pitanja otvorene forme). Trećom iteracijom pisani dokumenti (odgovori) eksperata analiziraju se i akterima se kanališu (povratne) informacije na koje oni odgovaraju dok se ostvari saglasnost o najkreativnijoj ideji, ili najboljem rešenju. Primjenom ovih modela u toku grupnog odlučivanja moguće je značajno unapređivati kvalitet važnih, odluka. [3; 172-174].

D. Indikativan je i individualni metod: „ekspertske procjene i ocjene“. Preciznije, u složenim i hitnim situacijama, kada ne postoji vrijeme i mogućnost studioznog istrživanja i anliziranja, uglavnom, zahtijeva se mišljenje eksperta (stručnjaka) kao lica, pojedinca, poznatog i priznatog u određenoj oblasti u svojoj zemlji, ili i u inostranstvu (objavljenim knjigama i radovima). Mišljenje eksperta, po pravilu, se usvaja, podrazumijevajući da je ispravno. Stanovište stručnjaka može biti i nadekvatno jer svi ljudi griješe, ali povoljniji je i ovakav pogled u odnosu na stav laika.

3. OSNOVE ODLUČIVANJA I INFORMATIČKA PISMENOST U SRBIJI

Kadrovi, obrazovne strukture, [1], odgovorne su za efikasnost odlučivanja i uspješnost privređivanja. Informatička baza podataka važna, osnova je donošenja odluka.

Tabela 1. Parametri postignute informatičke pismenosti u Srbiji (popis, 2011.): [7; 41]

Elementi	Pismeni	(%)	Parcijalno	(%)	Nepismeni	(%)
Muško	2.971.868	48,23	463.780	50,93	1.445.963	46,01
Žensko	3.189.716	51,77	446.806	49,07	1.696.891	53,99
Ukupno:	6.161.584	100,00	910.586	100,00	3.142.854	100,00

Polovičan je stepen informatičke pismenosti stanovništva Srbije. Nužno je intenziviranje, ovog vida, opismenjavanja sadašnjih i budućih naraštaja u modernom dobu.

4. SINTETIČKI PRIKAZ

Odlučivanje, jedna od najvažnijih ali i najtežih ljudskih aktivnosti. Odluke mogu biti: strategijske (srednjoročne i dugoročne); taktičke (kraćeg perioda); i operativne (kratkog roka). [2] Upravljačko-rukovodeći organi i pojedinci, menadžeri, na raznim organizacionim nivoima odlučuju vršeći izbor između dvije ili više varijanti i (ili) alternativa. Donošenje odluka je: kompleksan, (sve)obuhvatan, složen, sitematičan tok i proces. Zahtijeva više koraka (iteracija, faza i etapa) i raznovrsnih podataka, informacija, činjenica. Odluke, donose se u svim funkcionalnim domenima: planiranju; organizovanju; vođenju; kontroli; ispravci grešaka, propusta i dr. Privredne organizacije posluju u uslovima sve dinamičnijih transformacija; porasta rizičnosti i neizvjesnosti u okruženju. Nužno je donositi kvalitetne i brze odluke. Ali brzina i kvalitet najčešće ne idu zajedno! Okolnosti nameću donošenje brzih odluka, pojačavajući mogućnost i pogrešnih odluka! Neodlučnost pokazuje se konkretno i kao nesposobnost sa posljedicama, moguće pogubnim! Poslovno okruženje i konstitutivne činioce: socijalne, pravne, ekonomske, tehničko-tehnološke, tržišne, inovativne, kulturne, ekološke, i dr.; teško je predvidjeti pogotovu u dužem roku. Razni su oblici, modaliteti mogućih, odluka.

LITERATURA

[1] Avramović Z. [2014]; Obrazovanje između dnevne i naučne brige, Zavod za unapređivanje obrazovanja i vaspitanja, Beograd, Akademska knjiga, Novi Sad;

[2] Marić D. [2011], Odnos ekonomskih načela, efikasnosti i efektivnosti sa stanovišta strategijskog menadžmenta, Zbornik radova, Međunarodni naučni skup, Ekonomska nauka u funkciji kreiranja novog poslovnog ambijenta, ES-NBE [2011], Ekonomski fakultet Univerziteta u Prištini, Kosovskoj Mitrovici, str. 364-372.;

[3] Mašić B., Dželetović M. [2015], Uvod u menadžment, Inovacioni centar Fakulteta bezbjednosti Univerziteta u Beogradu, Akademska knjiga, Novi Sad;

[4] Đurić Z. [2011], Menadžment porodičnog biznisa, Beogradska poslovna škola, Visoka škola strukovnih studija, Beograd;

[5] Jančetović M., Đurić Z. [2005], Strategijski i operativni menadžment, Beogradska poslovna škola, Beograd,

[6] Milićević Z. [2011], Upravljanje tehnologijom i razvoj organizacije, Zbornik radova, Međunarodni naučni skup, Ekonomska nauka u funkciji kreiranja novog poslovnog ambijenta, ES-NBE [2011], Ekonomski fakultet Univerziteta u Prištini, Kosovskoj Mitrovici, str. 471-479.;

[7] Republički zavod za statistiku [2017], Statistički godišnjak Republike Srbije, Beograd, str. 41.

RAZNOLIKOST ODNOSA IZMEĐU KOMUNIKACIJE, GRUPNE KOHEZIJE I ISHODA NA RAZLIČITIM NIVOIMA*

THE DIVERSITY OF THE RELATIONSHIP BETWEEN COMMUNICATION, GROUP COHESION, AND OUTCOMES AT DIFFERENT LEVELS

Jelena Z. Golubović[1]
Vesna M. Milanović[2]
Andrea D. Bučalina Matić[3]

DOI: https://doi.org/10.31410/EMAN.2019.559

Sadržaj: *U radu je prezentovana raznolikost odnosa između komunikacije, grupne kohezije i ishoda tj. zadovoljstva i performansi koji su posmatrani na individualnom i grupnom nivou. Komunikacija je posmatrana kroz informacionu i relacionu dimenziju, komunikaciju licem u lice i elektronsku komunikaciju. Grupna kohezija je posmatrana kroz dimenziju kohezije zadatka grupe i društvenu dimenziju kohezije grupe. Performanse su posmatrane kroz individualne performanse posla, performanse zadatka grupe i kontekstualne performanse. Zadovoljstvo je posmatrano kroz individualno zadovoljstvo poslom i zadovoljstvo zadatkom grupe. Sve navedene varijable imaju osobinu multidimenzionalnosti koja čini da su njihovi međusobni odnosi složeni i još uvek nedovoljno jasni. Zbog toga su i dalje aktuelno područje istraživanja koja imaju multidisciplinarni karakter. Ciljevi ovog rada su: 1) da predstavi grupnu koheziju, komunikaciju, zadovoljstvo i performanse kao multidimenzionalne konstrukte 2) da prezentuje važne nalaze dosadašnjih istraživanja o njihovim međusobnim odnosima i da se na osnovu toga izvedu zaključci o relacijama u kojima se nalaze njihove pojedinačne dimenzije. Shodno navedenom postavljena je struktura rada. Istraživanje relevantne literature je sprovedeno tokom poslednjeg kvartala 2018. godine. Dobijeni rezultati potvrđuju složenost svih varijabli, i raznolikost njihovih međusobnih odnosa koji su predstavljeni kroz tri celine: komunikacija – performanse, komunikacija – grupna kohezija; grupna kohezija - performanse; grupna kohezija – zadovoljstvo - performanse.*

Ključne reči: *grupna kohezija, komunikacija, zadovoljstvo, performanse, odnosi, raznolikost.*

Abstract: *In this paper diversity of the relationship between communication, group cohesion, and outcomes i.e. satisfaction and performance were presented. Each of these variables was observed at group level and at individual level. Communication was observed through informational and relational dimension, face-to-face communication, and electronic communication. Group cohesion was observed through two dimensions - task cohesion and social cohesion. Performance was observed through individual job performance, group task performance, contextual performance. Satisfaction was observed through individual job satisfaction and group task satisfaction. Each of these variables presents a specific multidimensional construct, which make their relationship complex and still insufficiently clear. Therefore, these relationships are still current area of researches that are multidisciplinary. The aims of this paper were: 1) to present group cohesion, communication, satisfaction and performance as a multidimensional construct; 2) to present important*

---

* Rad je podržan od strane Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (projekat III 45003 i III 44006).

[1] Ministarstvo unutrašnjih poslova RS, Beograd, Srbija, Stevana Đurđevića Trošarinca, 8/6, 11030 Beograd, Srbija

[2] Univerzitet „Union-Nikola Tesla", Beograd, Poslovni i pravni fakultet, Mladenovac-Beograd, Knez Mihailova 33, 11000 Beograd, Srbija

[3] Megatrend univerzitet, Beograd, Fakultet za poslovne studije, Beograd, Bulevar maršala Tolbuhina 8, 11000 Beograd, Srbija

findings of the previous researches about the complex relationships among the observed variables and, based on that, to draw conclusions about the relations between the individual dimensions of the observed variables. Accordingly, the structure of this paper was determined. The survey was conducted during the last quarter of 2018. The results of this paper confirm the complexity of all the observed variables and the diversity of their relationships that were presented through three parts: communication - performance, communication - group cohesion; group cohesion - performance; group cohesion - satisfaction - performance.

Keywords: *group cohesion, communication, satisfaction, performance, relationship, diversity*

1. UVOD

Mnogobrojne su studije u različitim područjima istraživanja u kojima su se autori bavili utvrđivanjem faktora koji utiču na koheziju i efekata kohezije [1]-[9]. Preliminarni uvid u rezultate ovih studija je omogućio da se stekne saznanje da se radi o širokoj, složenoj i multidisciplinarnoj oblasti istraživanja koja nagoveštava značaj kohezije kao sociološkog i psihološkog fenomena u organizacionom odnosno grupnom kontekstu. Imajući u vidu navedeno, u daljoj pretrazi dosadašnjih istraživanja fokus je usmeren na grupnu koheziju. Ova pretraga je omogućila da se stekne saznanje da je grupna kohezija multidimenzionalan konstrukt i da je njen odnos sa performansama i drugim ishodima složen [3]; [4]; [6]; [7]; [10]-[14], iako je, prema Robinsu i Džadžu, i sama ishod procesa komunikacije [15: 25]. Istovremeno, rezultati ranijih studija ukazuju na raznolikost odnosa komunikacije i grupne kohezije [7]; [13], grupne kohezije i performansi [3]; [12]; [13], grupne kohezije i zadovoljstva [14]; [16]. Raznolikost navedenih odnosa posmatranih varijabli je bila izazov da se postave sledeći ciljevi u ovom radu: 1) da se predstave grupna kohezija, komunikacija, i ishodi tj. zadovoljstvo i performanse na individualnom i grupnom nivou kao multidimenzionalni konstrukti, 2) da se prezentuju važni nalazi dosadašnjih istraživanja o njihovim međusobnim odnosima, i da se na osnovu njih izvedu zaključci o relacijama u kojima se nalaze pojedinačne dimenzije posmatranih varijabli.

Zaključci u ovom radu mogu poslužiti boljem razumevanju koncepta grupne kohezije kao multidimenzionalnog konstrukta [12] koji pronalazi svoje mesto u istraživanjima multidisciplinarnog karaktera. Rezultati mogu biti od koristi i praktičarima u kreiranju strategija sa ciljem podizanja nivoa kohezije grupe i time poboljšanja ishoda grupe i njenih članova, odnosno performansi i zadovoljstva. Njihovo zadovoljstvo bi se pozitivno odražavalo na zadovoljstvo saradnika, članova njihove porodice i dugoročno članova šire društvene zajednice kojoj pojedinac pripada ili ka kojoj gravitira.

U strukturiranju rada se pošlo od njegovog predmeta i postavljenih ciljeva, tako da su u nastavku razmatrani kohezija i grupna kohezija, komunikacija kao sila koja vuče koheziju, zadovoljstvo i dimenzije zadovoljstva, performanse i dimenzije performansi, odnosi komunikacija – performanse i komunikacija – grupna kohezija, odnos grupna kohezija – performanse, odnos grupna kohezija – zadovoljstvo – performanse, i na kraju zaključak, doprinos rada i preporuke za dalja istraživanja, te popis literature.

2. KOHEZIJA I GRUPNA KOHEZIJA

Kohezija je najzastupljeniji koncept kada su u pitanju odnosi unutar grupe ili između grupa kao i kada se razmatraju performanse malih grupa [3]; [4]; [17]. Prema Livenu (Lewin, 1952) u [16: 265] kohezija je ono što drži („lepi“) članove grupe jedne sa drugima i podržava njihove

odnose. U tom smislu, kohezija može da izražava nivo privlačnosti koji pojedinac oseća prema grupi i koji opredeljuje da li će on u njoj ostati [18: 241], što je više verovatno ako je grupa više homogena. Prilagođavajući se prema [19: 77], može se zaključiti da su više homogene grupe više kohezivne grupe. Takođe, male grupe, pojedinci percipiraju kao više kohezivne [8], tako da kohezija malih grupa sve više privlači pažnju istraživača u svim disciplinama [20]. Drugi autori smatraju da se ipak ne može tvrditi da je kohezija važnija za manje, a komunikacija za veće grupe, kako se pretpostavljalo [21: 272], pa se može reći da su kohezija i komunikacija od jednakog značaja za grupe svih veličina.

Kako je kohezija složen konstrukt, smatra se da u merenju grupne kohezije (a naročito kada se ispituje njen uticaj na performanse), prioritete treba da imaju njene dve dimenzije: društvena dimenzija kohezije i kohezija zadatka grupe [6: 367]. Prema grupi autora (Lott and Lott, 1965; Seashore, 1954) u [8: 162] *društvena dimenzija grupne kohezije* se odnosi na atraktivnost grupe i društvene odnose njenih članova, dok se prema drugim autorima (Carron et al., 1985; Seashore, 1954) u [6: 368] odnosi na privlačnost i bliskost članova grupe koje se baziraju na intragrupnim društvenim odnosima. *Kohezija zadatka grupe* je odraz privlačnosti i povezanosti između članova grupe a radi zajedničkog ostvarivanja postavljenih ciljeva o čemu se govori u [6: 368] i [8: 162] odnosno zajedničkog ostvarivanja njenih performansi [6: 367]. Ukoliko pojedinci ne osećaju koheziju sa grupom (zbog nepoverenja, neprijatnosti, ili nezainteresovanosti) utoliko su manje motivisani da deluju u grupi što slabi pozitivne efekte grupe [6: 367]. Zbog toga je značajan odnos kohezije i performansi. Zajednički imenilac za efikasnije obavljanje zadataka u grupi, dostizanje boljih performansi i veću koheziju grupe je komunikacija.

3. KOMUNIKACIJA KAO SILA KOJA VUČE KOHEZIJU

Koheziji grupe doprinosi komunikacija i odnosi koji se uspostavljaju između njenih članova [22]; [23]. Prema mišljenju više autora (Adams, 2007; Mesmer-Magnus and DeChurch, 2009; Marks, Mathieu and Zaccaro, 2001; Salas, Sims and Burke, 2005) u [24: 146] komunikacija u grupi (timu) se određuje kao *razmena informacija* putem verbalnih i neverbalnih kanala između dva ili više članova odnosno kao međusobno i zavisno ponašanje unutar grupe koje dovodi do ishoda kao što su performanse. Prema navedenom, komunikacija predstavlja složen konstrukt. U vezi s tim, povećanju grupne kohezije i performansi grupe ne doprinose jednako svi oblici i tokovi komunikacije [13]. *Komunikacijom licem u lice* se koriste efekti interspersonalnog, dvosmernog odnosa u kojem se razmenjuju informacije ili poruke i koji omogućava dobijanje povratne informacije tokom same komunikacije. Radi se o svojevrsnoj interakciji učesnika komunikacionog procesa. Ovakav oblik komunikacije stvara bliže veze između vođe i člana grupe ili između najmanje dva člana jer je direktan, za razliku od *elektronskih vidova komuniciranja*. Komunikacija na dole služi *informisanju* pojedinaca o zadacima koji su im dodeljeni. Njom upravlja nadređeni - vođa grupe ili tima, i od njegovog stila komuniciranja i spremnosti na saradnju zavise kvalitet komunikacije i performanse zadatka grupe. Komunikacijom na gore se prosleđuju *informacije* o obavljenim zadacima od članova grupe prema vođi. Na ovaj način se stiče utisak i o međusobnim *relacijama* između članova grupe a ne samo vođe i člana grupe. Njom je moguće poboljšati zadovoljstvo svakog člana grupe kao i rezultate koji proističu iz obavljenog zadatka u grupi.

4. ZADOVOLJSTVO I DIMENZIJE ZADOVOLJSTVA

Zadovoljstvo predstavlja reakciju pojedinca ili grupe na bilo koji aspekt posla ili zadatka, pa i života. Istraživanja zadovoljstva poslom grupe ili zadatkom grupe su mnogo ređa u odnosu na istraživanja zadovoljstva poslom zaposlenog kao pojedinca. Mejson i Grifin (Mason and Griffin) su prvi put početkom ovog veka predstavili koncept „Zadovoljstvo zadatkom grupe“ [16: 265]. Zadovoljstvo zadatkom grupe je kolektivna suprotnost zadovoljstvu poslom pojedinca (kao njenog člana). Pod ovim konceptom se podrazumevaju zajednički stav grupe prema zadatku i radnom okruženju [25: 625].

Pojedinci mogu imati različite emocije prema poslu, konkretnom zadatku ili grupi, čime i različit nivo zadovoljstva, iako im je ista kognitivna dimenzija. Ovo znači da je njihova afektivna dimenzija različita. U tom smislu *zadovoljstvo grupom* može biti niže od *zadovoljstva poslom njenog člana* (individualno zadovoljstvo poslom). Zadovoljstvo grupom nije prosta suma pojedinačnih zadovoljstava. Jednim delom ga gradi zadovoljstvo zadatkom. *Zadovoljstvo zadatkom grupe* se odnosi na zadovoljstvo konkretnim zadatkom koji grupa obavlja, tako da je njegov značaj za performanse zadatka veliki, što je i potvrđeno u mnogim studijama.

5. PERFORMANSE I DIMENZIJE PERFORMANSI

Za performanse se može reći da su one rezultati, ishodi, učinci koji se postižu na različitim nivoima. *Individualne performanse* kao performanse posla pojedinca su složen konstrukt, sačinjen od više dimenzija [26: 357]. Najčešće se poistovećuju sa *performansama zadatka* kojeg pojedinac obavlja u okviru svog radnog mesta, iako su one samo jedna dimenzija performansi.

Performanse grupe se odnose na rezultate koje grupa postiže. Obično se posmatraju kroz performanse zadatka grupe i kontekstualne performanse grupe. *Performanse zadatka grupe* su ishodi ponašanja u grupi koja odražavaju nivo do kojeg su zahtevi, postavljeni pred grupu, ispunjeni [13: 218]. One zavise od formalnih dužnosti i ponašanja koji su potrebni za obavljanje posla i njemu svojstvenih zadataka. Neminovno je da pojedinci ali i grupa demonstriraju i ponašanja koja nisu u uskoj vezi sa obavljanjem delegiranih zadataka. Reč je o kontekstualnom ponašanju, odnosno *kontekstualnim performansama*. Kada se govori o ponašanju u grupi onda ono proizilazi iz interspersonalnih odnosa, pa interpersonalna komunikacija može imati značajnu ulogu u oblikovanju odnosa između članova grupe.

6. ODNOSI KOMUNIKACIJA-PERFORMANSE, KOMUNIKACIJA-GRUPNA KOHEZIJA

Komunikacija ima ključnu ulogu u unapređivanju performansi grupe. Njen uticaj je intenzivniji što je grupa više familijarna [24: 154]. Prema Maksu i saradnicima (Marks et al., 2000) u [24: 148], veći uticaj na *performanse grupe* je na strani *kvaliteta komunikacije* u odnosu na frekventnost. Kvalitet komunikacije se često povezuje sa kvalitetom odnosa u grupi. Bolji odnosi između vođe i članova grupe mogu da poboljšaju performanse grupe. A ukoliko se uspostavljaju oko konkretnog zadatka onda vode i boljim performansama zadatka. Osim toga, u ostvarenju zadataka veliku ulogu igraju vertikalni tokovi komunikacije. Njih karakteriše informaciona dimenzija. Ova dimenzija komunikacije, u odnosu na druge, ima jaču vezu sa *performansama grupe*, što se može reći i za formu *komunikacije licem u lice* u odnosu na ostale forme [24: 154]. Komunikacija licem u lice podrazumeva i neverbalno komuniciranje, pa su šanse da se članovi grupe bolje razumeju veće (u uslovima poznavanja tehnika neverbalne komunikacije).

Kako ublažavanju negativnog uticaja (članova) grupe ili tima na performanse pomaže *komunikacija licem u lice* [13], tako vreme provedeno u njoj poboljšava *društvenu dimenziju grupne kohezije*, što pozitivno utiče i na *grupne kontekstualne performanse*. Suprotno tome, na *koheziju zadatka grupe* značajniji uticaj imaju *elektronski vidovi komuniciranja*. Nije pronađen posredni efekat između vremena koje se provede u komunikaciji licem u lice, kohezije zadatka grupe i performansi zadatka grupe [7]. Razlog tome je što se elektronska komunikacija (imejl, primera radi) sve više koristi za davanje instrukcija u vezi izvršavanja zadataka. Međutim, ne treba zanemariti značaj komunikacije koja se odvija putem jezika a ne govorom novih tehnologija kao posrednika, kako bi se mogle očuvati osnovne vrednosti na kojima počivaju odnosi unutar bilo kog društvenog entiteta.

7. ODNOS GRUPNA KOHEZIJA – PERFORMANSE

Iako je u jednom broju studija utvrđena pozitivna veza kohezije i performansi [4], rezultati drugih studija (Castano, Vatts and Tekleab, 2013; Dobersek et al., 2014; Gulli and Langfred, 2000; Levine and Moreland, 1990) u [10] ukazuju da njihovom odnosu posreduju kako veličina grupe, tako i njen dizajn, međuzavisnost zadataka grupe, nivo prihvatanja ciljeva, norme grupe i sl. Smatra se da je odnos kohezija – performanse jači u manjim nego u većim grupama [3]. Takođe, grupna kohezija je intenzivnija kod grupa koje karakterišu jake ili slabe performanse [10]. Ekstremne situacije, dakle, utiču da su članovi grupe više povezani i drže se jedni drugih.

Ako grupna kohezija prethodi performansama grupe, pretpostavlja se da su zaposleni stvarali u atmosferi većeg zadovoljstva, veće motivacije i identifikacije sa grupom. Međutim, druga istraživanja pokazuju da nije grupna kohezija inicijalni faktor performansi već da visoke performanse grupe vode povećanju grupne kohezije [4]; [27]. Ono što nije sporno je da visoke performanse čine suštinu i cilj formiranja svake grupe a posebno projektnog tima. Osim toga, iako je utvrđeno da je više kohezivna grupa povezana sa brojnim ishodima na organizacionom i individualnom nivou [11], odnos nivoa grupne kohezije i performansi grupe ne mora biti uvek pozitivan. Polazeći od toga da topologija društvene mreže grupe utiče na performanse, odnosno da je njihov prediktor, utvrđen je inverzan odnos kohezije grupe i njenih performansi i to u obliku slova „U“ [9: 703]. Rezultati ranijih istraživanja o odnosu između grupne kohezije i performansi su evidentno raznovrsni. Razlog tome je što su istraživači koristili različite varijable i veličinu uzorka u različitim kontekstima [10]. Ovo znači da odnos pojedinih dimenzija kohezije i performansi može biti različit što potvrđuje da je ispitivanje odnosa kohezija – performanse složeno.

Različitost odnosa pojedinih dimenzija grupne kohezije i performansi se ogleda u činjenici da je kohezija zadatka prediktor performansi ali da njima ne doprinosi društvena kohezija grupe. Razlog tome je što društvenu dimenziju kohezije grupe reflektuju odnosi članova u grupi, a ne ciljevi definisani normiranim performansama. Osim toga, različit je odnos pojedinih dimenzija kohezije i zadovoljstva kada su u pitanju grupe ili timovi koji se organizuju oko projekta. Naime, potvrđena je pozitivna veza između kohezije i zadovoljstva pojedinca – člana grupe. U početku tj. u prvim fazama rada u projektnoj grupi (timu), kohezija zadatka je veća od interpersonalne kohezije. Tako da kohezija zadatka posreduje u odnosu interpersonalna kohezija i zadovoljstvo pojedinca grupom - timom [14]. Na performanse i zadovoljstvo grupom ili timom veći uticaj ima kohezija zadatka, jer se oni stvaraju zbog zadatka. Evans i Dion (Evans and Dion) predlažu da treba biti oprezan prilikom tumačenja rezultata odnosa grupna kohezija – performanse, odnosno da ih ne treba generalizovati [3].

8. ODNOS GRUPNA KOHEZIJA – ZADOVOLJSTVO – PERFORMANSE

Grupna kohezija utiče na individualno zadovoljstvo poslom (zadovoljstvo poslom pojedinca) kao i na individualne performanse (performanse posla pojedinca) preko zadovoljstva zadatkom grupe [16: 264]. Evidentno je da zadovoljstvo zadatkom grupe posreduje uticaju grupne kohezije na ishode na individualnom nivou. Osim toga, percepcije pojedinca (člana grupe) o zadovoljstvu zadatkom grupe imaju značajan pozitivan uticaj na njegovo individualno zadovoljstvo poslom [16: 269] tako da zadovoljstvo zadatkom grupe utiče na individualne performanse preko individualnog zadovoljstva poslom [16: 264]. Zadovoljstvo zadatkom grupe može biti u pozitivnom odnosu i sa ukupnim performansama grupe [25: 625]. Džadž i Vatanabe (Judge and Vatanabe, 1993) u [26: 343] smatraju da je visok nivo zadovoljstva zadatkom ili poslom pojedinca važan i za organizaciju i šire, jer zadovoljstvo poslom ima uticaj na zadovoljstvo životom pojedinca. Ovo zadovoljstvo se prenosi na članove porodice i širi u društvo.

9. ZAKLJUČAK

Uočena multidimenzionalnost društvene kohezije tokom preliminarnog pregleda relevantne literature je bila izazov da se nastavi sa daljim pregledima dosadašnjih istraživanja o koheziji sa fokusom na grupnu koheziju i njenu ulogu u organizacionom kontekstu. Uočena je njena izrazita složenost a naročito kada se posmatra u odnosu sa ishodima grupe ili njenih članova, s jedne strane, i kada je i sama ishod delovanja različitih oblika komunikacije, s druge. Stoga ovi odnosi i dalje izazivaju posebnu pažnju istraživača, pa je prema navedenom, u ovom radu prezentovana raznolikost odnosa između komunikacije, grupne kohezije, zadovoljstva i performansi koji su posmatrani kao ishodi na individualnom i grupnom nivou. Komunikacija je posmatrana kroz informacionu i relacionu dimenziju, komunikaciju licem u lice i elektronsku komunikaciju. Grupna kohezija je posmatrana kroz dve dimenzije - koheziju zadatka grupe i društvenu dimenziju kohezije grupe. Performanse su posmatrane kroz individualne performanse posla, performanse zadatka grupe i kontekstualne performanse. Zadovoljstvo je posmatrano kroz individualno zadovoljstvo poslom i zadovoljstvo zadatkom grupe.

Ciljevi rada su ostvareni. Predstavljeni su grupna kohezija, komunikacija, zadovoljstvo i performanse kao multidimenzionalni konstrukti i prezentovani su važniji nalazi dosadašnjih istraživanja o njihovim međusobnim odnosima. Na osnovu navedenog došlo se do nekoliko zaključaka. Prvi je da je komunikacija sila koja deluje na rast kohezije ali se ovo delovanje razlikuje u zavisnosti od dimenzije komunikacije i dimenzije grupne kohezije. Komunikacija licem u lice i relaciona dimenzija komunikacije utiču na društvenu dimenziju grupne kohezije i kontekstualne performanse grupe. Savremeni vidovi elektronskog komuniciranja i informaciona dimenzija utiču na koheziju zadatka grupe i performanse zadatka grupe. Performansama grupe može doprineti i komunikacija licem u lice kada se sprovodi radi efikasnog ostvarivanja zadataka grupe. Drugo, grupnoj koheziji na različit način doprinose njene dve osnovne dimenzije koje imaju različit odnos sa performansama i zadovoljstvom. Kohezija zadatka ima jaču vezu sa performansama zadatka i zadovoljstvom zadatkom u odnosu na društvenu dimenziju kohezije grupe; ta veza je direktna. Osim toga, kohezija zadatka posreduje uticaju društvene dimenzije grupne kohezije na zadovoljstvo zadatkom. Treće, grupna kohezija deluje na individualne performanse i individualno zadovoljstvo poslom ali posredstvom zadovoljstva zadatkom grupe. Ipak, zadovoljstvo zadatkom grupe nalazi put do individualnih performansi preko individualnog zadovoljstva poslom.

10. DOPRINOS RADA I PREPORUKE ZA DALJA ISTRAŽIVANJA

Navedeni zaključci doprinose boljem razumevanju koncepta grupne kohezije kao multidimenzionalnog konstrukta [12] koji pronalazi svoje mesto u istraživanjima multidisciplinarnog karaktera kao što su u [4]; [5]; [8]; [14]; [16]; [20] a naročito onim u kojim je dat naglasak na grupnu koheziju i njene odnose sa drugim varijablama u organizacionom kontekstu kao što su komunikacija, s jedne strane i zadovoljstvo i performanse pojedinaca i grupe, s druge.

Rezultati mogu biti od koristi praktičarima u kreiranju strategija sa ciljem podizanja nivoa kohezije grupe preko njenih dimenzija i time poboljšanja ishoda grupe i njenih članova. To se može postići kroz komunikaciju kojom se jačaju obe dimenzije grupne kohezije. Ukoliko je cilj da se povećaju individualno zadovoljstvo poslom i individualne performanse (posredstvom individualnog zadovoljstva) onda treba poboljšati zadovoljstvo zadatkom grupe. Zadovoljstvo zadatkom grupe i time performanse zadatka se povećavaju kroz povećanje kohezije zadatka grupe. Kohezija zadatka grupe se može povećati efikasnom elektronskom komunikacijom i informacionom dimenzijom komunikacije. Ukoliko je cilj da se zadrže članovi grupe u grupi, i podignu kontekstualne performanse grupe, onda je neophodno jačati interpersonalnu koheziju i društvenu dimenziju kohezije grupe, čemu doprinosi komunikacija licem u lice i njena relaciona dimenzija.

Evidentno da dimenzije zadovoljstva - zadovoljstvo zadatkom grupe i individualno zadovoljstvo su od ključnog značaja, jer preko njih grupna kohezija ostvaruje uticaj na individualne performanse. Važnost toga je što se zadovoljstvo pojedinca kao člana grupe prenosi na zadovoljstvo saradnika, članova njihove porodice i dugoročno većih društvenih grupa kojim pojedinac pripada.

Direktan odnos grupne kohezije i performansi grupe je i dalje otvoren za diskusiju, što se preporučuje za dalja istraživanja.

LITERATURA

[1] Al-Yaaribi, A. and Kavussanu, M. (2017) "Teammate prosocial and antisocial behaviors predict task cohesion and burnout: the mediating role of affect", *Journal of sport and exercise psychology*, 39(3)/2017, pp. 199-208, https://doi.org/10.1123/jsep.2016-0336

[2] Ariely, G. (2014) "Does Diversity Erode Social Cohesion? Conceptual and Methodological Issues", *Political Studies*, 62(3)/2014, pp. 573-595, http://dx.doi.org/10.1111/1467-9248.12068

[3] Evans, C. R. and Dion, K. L. (1991) "Group Cohesion and Performance: A Meta-Analysis", *Small Group Research*, 22(2)/1991, pp. 175–186, https://doi.org/10.1177/1046496491222002

[4] Mullen, B. and Copper, C. (1994) "The relation between group cohesiveness and performance: Integration", *Psychological Bulletin*, 115(2)/1994, pp. 210-227, http://dx.doi.org/10.1037//0033-2909.115.2.210

[5] Pescosolido, A. T. and Saavedra, R. (2012) "Cohesion and Sports Teams A Review", *Small Group Research*, 43(6)/2012, pp. 744-758, https://doi.org/10.1177/1046496412465020

[6] Salas, E., Grossman, R., Hughes, A. M. and Coultas, C. W. (2015) "Measuring team cohesion: Observations from the science", *Human Factors*, 57(3)/2015, pp. 365-374, 10.1177/0018720815578267

[7] Shin, Y. and Song, K. (2011) "Role of face-to-face and computer-mediated communication time in the cohesion and performance of mixed-mode groups", *Asian Journal of Social Psychology,* 14(2)/2011, pp. 126-139, https://doi.org/10.1111/j.1467-839X.2010.01341.x

[8] Tulin, M., Pollet, T. V. and Lehmann-Willenbrock, N. (2018). "Perceived group cohesion versus actual social structure: A study using social network analysis of egocentric Facebook networks", *Social Science Research,* 74(August)/2018, pp. 161-175, doi: 10.1016/j.ssresearch.2018.04.004

[9] Wise, S. (2014) "Can a team have too much cohesion? The dark side to network density. *European Management Journal,* 32(5)/2014, pp. 703-711, https://doi.org/10.1016/j.emj.2013.12.005

[10] Banwo, A. O., Du, J. and Onokala, U. (2015) "The Impact of Group Cohesiveness on Organizational Performance: The Nigerian Case", *International Journal of Business and Management*, 10(6)/2015, pp. 146-154.

[11] Casey-Campbell, M. and Martens, M. L. (2009) "Sticking it all together: a critical assessment of the group cohesion-performance literature", *International Journal of Management Reviews*, 11(2)/2009, pp. 223–246.

[12] Chang, A. and Bordia, P. (2001) "A multidimensional approach to the group cohesion-group performance relationship", *Small Group Research*, 32(4)/2001, pp. 379-405.

[13] Hill, S. N., Offermann, L. R. and Thomas, K. (2018) "Mitigating the Detrimental Impact of Maximum Negative Affect on Team Cohesion and Performance Through Face-to-Face Communication", *Group & Organization Management*, 44(1)/2018, pp. 211-238, https://doi.org/10.1177/1059601118776835

[14] Picazo, C., Gamero, N., Zornoza, A. and Peiró, J. M. (2015) "Testing relations between group cohesion and satisfaction in project teams: A cross-level and cross-lagged approach", *European Journal of Work and Organizational Psychology*, 24(2)/2015, pp. 297-307, 10.1080/1359432X.2014.894979

[15] Robbins, S. and Judge, T. (2013) *Organizational Behaviour*, 15th ed. Pearson Education, USA.

[16] Wu, X., Wen, B. and Du, M. (2015) "A Multi-Level Research on the Antecedents and Consequences of Group Task Satisfaction, *American Journal of Industrial and Business Management*, 5(5)/2015, pp. 264-271, 10.4236/ajibm.2015.55028

[17] Chiocchio, F. and Essiembre, H. (2009) "Cohesion and performance: A meta-analytic review of disparities between project teams, production teams, and service teams", *Small Group Research*, 40(4)/2009, pp. 382-420, http://dx.doi.org/10.1177/1046496409335103

[18] McShane, S. and Von Glinow, M. (2003) *Organizational Behavior, Emerging Realities for the Workplace Revolution*, 7th ed, McGrow-Hill, USA.

[19] Love, L. R. (2018) "Group cohesion: the effect of diversity", *Global journal of management and marketing,* 2(1)/2018, pp. 77-87.

[20] Greer, L. L. (2012) "Group Cohesion Then and Now", *Small Group Research,* 43(6)/2012, pp. 655-661, http://dx.doi.org/10.1177/1046496412461532

[21] Lindsjørn, Y., Bergersen, G. R., Dings, T. and Sjøberg, D. I. K. (2018) " Teamwork Quality and Team Performance: Exploring Differences Between Small and Large Agile Projects", in: Garbajosa, J., Wang, X. and Aguiar, A. (Eds.), *Agile Processes in Software Engineering and Extreme Programming*, Switzerland: Springer, pp. 267–274 (19th International Conference *XP 2018*, Porto, Portugal, May 21–25).

[22] Rosh, L., Offermann, L. R. and Van Diest, R. (2012) "Too close for comfort? Distinguishing between team intimacy and team cohesion", *Human Resource Management Review*, 22(2)/2012, pp. 116-127, http://dx.doi.org/10.1016/j.hrmr.2011.11.004

[23] Shaw, M. E. (1976) *Group dynamics: The psychology of small group behavior*, 2nd ed., McGraw-Hill, USA.

[24] Marlow, S. L., Lacerenza, C. N., Paoletti, J., Burke, S. C. and Salas, E. (2018) "Does team communication represent a one-size-fits-all approach? A meta-analysis of team communication and performance*, Organizational Behavior and Human Decision Processes*, 144 (January)/2018, pp. 145-170, http://dx.doi.org/10.1016/j.obhdp.2017.08.001

[25] Mason, C. M. and Griffin, M. A. (2005) "Group Task Satisfaction The Group's Shared Attitude to its Task and Work Environment", *Group & Organization Management,* 30(6)/2005, pp. 625-652, https://doi.org/10.1177/1059601104269522

[26] Judge, T. A. and Kammeyer-Mueller, J. D. (2012) "Job Attitudes", *Annual Review of Psychology,* 63/2012, pp. 341–367, doi: 10.1146/annurev-psych-120710-100511

[27] Schermerhorn, J. Jr., Hunt, J. G. and Osborn, R. N. (2010) *Organizational Behavior,* 11th ed., John Wiley & Sons, USA.

ВЛИЈАНИЕ И ПРИМЕНА НА ИНТЕРНЕТ МАРКЕТИНГ СТРАТЕГИИ ВО КОМПАНИИТЕ ЗА ПРОИЗВОСТВО И ПРОМЕНТ НА СИТЕН АЛАТ ВО РЕПУБЛИКА МАКЕДОНИЈА

THE IMPACT AND THE IMPLEMENTATION OF INTERNET MARKETING STRATEGIES IN POWER TOOLS COMPANIES IN REPUBLIC OF MACEDONIA

Dimitar Jovevski[1]
Snezana Ristevska Jovanovska[2]
Elena Spirova[3]

DOI: https://doi.org/10.31410/EMAN.2019.569

Абстракт: *Интернет маркетингот е познат и како е-маркетинг, веб маркетинг или дигитален маркетинг и е сеопфатен термин за спроведување маркетинг активности за производите и/или услугите онлајн како и многу други сеопфатни термини. Интернет маркетингот значи различни работи за различни луѓе. Додека очигледната цел на интернет маркетингот е да се продаваат производи и услуги или да се врши промоција преку интернет, компаниите можат преку интернетот да комуницираат, да пренесуваат или разменуваат пораки во врска со самите себе или да водат истражувања. Интернет маркетингот може да биде многу ефективно средство за идентификување на целниот пазар или за откривање на маркетинг сегментите и нивните потреби и желби.*

Гледано од маркетиншки аспект, социјалните медиуми стануваат сѐ позначајни, меѓутоа многу бизниси се несигурни дали прифаќањето на социјалните медиуми ќе ја унапреди горната линија ако има тешкотии во усогласувањето на маркетинг активностите преку социјалните медиуми со зголемувањето на продажбата.

Клучни зборови: *интернет маркетинг стртегии, имплементацција на дигитални маркетинг стратегии, комании за производство и промент на ситен алат.*

Abstract: *Internet marketing, also known as emarketing, WEB marketing, or digital marketing, is an all-inclusive term for marketing products and/or services online - and like many all-inclusive terms, internet marketing means different things to different people. While the obvious purpose of internet marketing is to sell goods, services or advertising over the internet, a company may be marketing online to communicate a message about itself or to conduct research. Online marketing can be a very effective way to identify a target market or discover a marketing segment's wants and needs. From a marketing perspective social media is becoming more and more important, however many businesses are unsure whether embracing social media has improved the bottom line as it is difficult to correlate social media marketing activities with increased sales. In the paper we are going to elaborate the impact and the implementation of internet marketing strategies in power tools companies in Republic of Macedonia.*

Keywords: *internet marketing strategy, implementation of digital marketing strategy, power tools companies.*

[1] Faculty of Economics-Skopje, Ss. Cyril and Methodius University in Skopje, Goce Delcev 9V, 1000 Skopje
[2] Faculty of Economics-Skopje, Ss. Cyril and Methodius University in Skopje, Goce Delcev 9V, 1000 Skopje
[3] Faculty of Economics-Skopje, Ss. Cyril and Methodius University in Skopje, Goce Delcev 9V, 1000 Skopje

1. ВОВЕД

Интернет маркетингот претставува рекламирање, креирање маркетинг активности и кампањи преку интернет, односно остварување на маркетинг целите преку дигиталните технологии и при користење на интернет маркетинг стратегиите [1].

Компаниите кои користат интернет маркетинг стратегии имаат можност за промовирање на нивните услуги и производи на интернет по пониска цена, пласирање на производите до поголем број потенцијални потрошувачи, можност за зголемување на директната продажба и создавање потенцијални и лојални потрошувачи. Компаниите, интернет маркетингот, скоро секогаш го користат во комбинација со традиционалните медиуми за да се стекнат со соодветно пласирање на производите и услугите до посакуваните клиенти и потрошувачи и за комплетно и успешно да ги остварат своите бизнис и маркетинг цели.

Интернет маркетингот станува дел од дигиталните канали, а дигиталните канали сѐ повеќе и повеќе се распространети. Интернет маркетингот се смета дека е поефикасен од традиционалниот маркетинг, поради тоа што емитува дигитални маркетинг пораки до потрошувачите за помали трошоци во однос на ТВ рекламирањето или печатените кампањи, при што се пласираат информации во кое било време и на кое било место за поширока публика која може да прерасне во потенцијални потрошувачи и клиенти [2]. Интернет маркетингот заедно со интернет маркетинг стратегиите се иднината на современиот и модерниот маркетинг [3]. Се претпоставува и очекува дигиталните медиуми, онлајн рекламирањето и користењето на интернет маркетинг стратегиите да ги заменат традиционалните форми на рекламирање. Денес е актуелно тоа што повеќето, односно најголемиот број клиенти и потрошувачи се присутни на интернет за да го најдат производот или услугата која ја посакуваат или им е потребна.

Затоа и користењето на интернет маркетинг стратегиите го пласираат производот соодветно на потрошувачите кои компанијата сака да ги таргетира, при што истовремено таргетираните потрошувачи може многу едноставно и брзо да најдат информации за производите и услугите кои им се потребни, како и за самата компанија, но и да донесат одлука за нарачка или купување одреден производ или услуга без да ги посетат продажните места на компанијата. Користењето на интернет маркетингот и на интернет маркетинг стратегиите има растечки тренд во Република Македонија, како и во целиот свет. Предностите од интернет маркетинг стратегиите сѐ повеќе и повеќе растат, а со тоа и нивната примена и имплементација во секојдневното работење зема поголем замав. Компаниите во Република Македонија почнуваат да ја препознаваат предноста на интернет маркетингот, користењето на различните видови на интернет маркетинг стратегии, како и развојот на социјалните мрежи кои моментално се тренд и се најчесто користен вид интернет маркетинг стратегија. Големата употреба на интернетот комбиниран со добри и креативни бизнис идеи, добро креирани планови и користење современи интернет маркетинг стратеии кои се актуелни, доведува до огромна можност за соодветно пласирање на производот и продажба која води до долгорочен успех, раст и зголемување на профитот кај компаниите.

Според извештајот на Државниот завод за статистика на Република Македонија од 2016 година, 75,3% од домаќинствата имале пристап на интернет од дома, што според истражувањето е за шест проценти повеќе од 2015 година. Исто така, во 2016 година, од вкупното население на возраст од 15 до 74 години, користеле интернет 72%, а 61% користеле интернет секој ден или речиси секој ден. Во 2016 година, мобилните телефони или паметните телефони биле

најискористени средства за пристап до интернет кај 81% од целата популација, а најмногу искористени кај лицата на возраст од 15 до 24 години, дури 92%. Во периодот на оваа година, 19,3 проценти од лицата кои употребувале интернет, нарачале или купиле стоки или услуги преку интернет, а мнозинството од нив, 55% купиле облека или спортска облека[4].

Според статистиките во светски рамки, во 2016 година, дигиталното рекламирање изнесувало околу 33%. Во 2017 година се очекува уште поголема раздвиженост на пазарот на онлајн рекламирањето, како и голем број нови маркетинг кампањи и попаметно искористување на буџетите за интернет маркетинг рекламирање и стратегии. Прогнозите за во иднина се дека до крајот на 2018 година уделот во дигиталното огласување ќе порасне до 37%. Се претпоставува, исто така, дека 2018 година ќе биде одлучувачка година во која вложувањата во дигиталното рекламирање и во интернет маркетинг стратегиите, ќе го надмине вложувањето во телевизиското со 37,5% на глобално ниво. И додека вложувањето во онлајн рекламирањето и интернет маркетинг стратегиите и понатаму расте, вложувањето во телевизиското огласување и рекламирање повеќе нема да биде во фокусот [5]. Компаниите во Република Македонија немаат избор дали да го користат интернет маркетингот и интернет маркетинг стратегиите во нивното секојдевно работење, туку треба да се стремат кон најдобро и правилно користење на актуелните интернет маркетинг стратегии со што соодветно ќе ги пласираат своите производи и услуги, ќе ја зголемуваат продажбата, ќе стекнат нови и потенцијални потрошувачи со кои долгорочно ќе градат односи кои ќе им помогнат на компаниите да одржуваат константен и успешен раст и развој. Единствен и еден од клучните проблеми кај компаниите во Република Македонија е недовербата која ја имаат во маркетинг агенциите заради несогледување на реалниот бенефит од користењето на интернет маркетинг стратегиите. Маркетинг агенциите кои имаат понуда за креирање маркетинг активности и успешни интернет маркетинг стратегии не нудат соодветно мерење на резултатите и прикажување поврат на инвестициите со конкретно остварени цели.

Според податоците од јануари 2017 година, широкопојасен пристап на интернет, преку фиксна или мобилна конекција, во Република Македонија имале 91,2% од деловните субјекти со десет или повеќе вработени. Пристапот до интернет се остварува преку пренослив уред, со употреба на мобилна телефонска мрежа (3G/4G). Ваков пристап имале 63% од деловните субјекти. Мобилна поврзаност на интернет преку преносливи уреди: ноутбук, лаптоп, смартфон, телефон PDA, за деловна намена користеле 14,5% од вработените во деловните субјекти додека 54,2% користеле социјални медиуми: Facebook, LinkedIn, Twitter, Present.ly, YouTube, Flickr, Picassa, алатки Wiki,..., односно имале кориснички профил, сметка или лиценца за користење одреден социјален медиум [6]. Во 2016 година, 10,3% од деловните субјекти со 10 или повеќе вработени воделе е-трговија, купувале или продавале стоки или услуги преку компјутерски мрежи (веб или EDI). Притоа, е-продажба реализирале 6%, а е-купувања 5,8% [7].

2. ПРИМЕНА НА ИНТЕРНЕТ МАРКЕТИНГ СТРАТЕГИИТЕ КАЈ КОМПАНИИТЕ ЗА РАЧЕН АЛАТ

За согледување на практичната примена и користењето на интернетот и интернет маркетинг стратегиите, подготвен е анкетен прашалник и е спроведено анкетирање на компании кои работат со производство и промет на алат - рачен и електричен. Изборот на компаните од дејноста производство и трговија на електричен и рачен алат е направен, пред сè, поради специфичноста на овој вид производи, нивната намена и начинот на

продажба. Во голема мера, покрај тоа што ваквите производи се продаваат во големи продавници, тие се продаваат и преку каталози - печатени и електронски, што претставуваше сериозна основа да се размислува за тоа дека ваквите компании развиваат и користат интернет и интернет маркетинг стратегии за полесно и побрзо да ги претставаат и продаваат своите производи на своите целни купувачи. Избраните главно се компании кои вршат трговска дејност, односно увезуваат и продаваат, покрај другите производи, и алат за потребите на други компании и за граѓаните. Некои од компаниите се застапници на познати светски компании, производители на алат и прибор. Избраните компании се од категоријата мали и средни компании, од причини што во регистарот на компании кои работат со алат во Република Македонија постојат само мали и средни компании.

На анкетниот прашалник кој беше доставен до 19 компании, одговори се добиени од десет.

Анкетниот прашалник содржеше 19 прашања кои се од типот:

- Давање одговор од повеќе можни одговори. Целта на оваа група прашања е на испитаниците да им се понудат неколку конкретни одговори од кои еден или неколку од одговорите ја изразуваат суштината на активноста со која е предмет на работење или претставува содржина на компанијата.
- Дихотомни или прашања со избор од два понудени ДА или НЕ. Целта на поставувањето на овие прашања е испитаниците со одговорот „Да» да ја потврдат активноста или да истакнат дека компанијата не извршува такви активности.
- Отворени прашања. Отворените прашања се поставени со цел да им се овозможи на испитаниците да го искажат своето мислење, ставови како и остварени активности.

Компаниите ги дадоа одговорите со заокружување на понудените одговори и давање одговор на отворените прашања според состојбата во нивната компанија. Добиените одговори се обработени според подрачјата на кои се однесуваа прашањата како графикони, структура и искажување содржина.

Од аспект на содржината на прашалникот може да се издвојат 4 групи прашања. Првата група прашања се однесува на дескриптивните податоци за самите компании. Прашањата од 1 до 4 се опфатени одговори за тоа каков стаус има компанијата, колку години работи, колкав број врабиотени има и каде ги остварува работните активности. Останатите 15 прашања се однесуваат на нивото, степенот на користење на интернетот генерално како и степенот на примена на дигиталните маркетинг стратегии. Содржински прашањата се споделени во четири подгрупи и тоа:

- од 5 до 7 се однесуваат на тоа дали компаниите користат интернет во своето работење, дали имаат веб страница, како и што типови содржина објавуваат на веб страницата,
- 8 и 9 се однесуваат на користењето на социјалните медиуми, односно на кои медиуми компанијата има профил и како го користат Фејсбук профилот,
- од 10 до 12 се однесуваат на користењето на класични медиуми, прашањата, односно како компанијата го остварува бизнис комуницирањето со нејзините купувачи, како доаѓа до информации за купувачите и дали компанијата користи класични медиуми за бизнис комуницирање со своите купувачи,
- од 13 до 19 се однесуваат на електронско комуницирање, односно дали користењето на интернетот, facebook профилот влијае врз зголемувањето на бројот на купувачите, дали интернет комуницирањето со купувачите и го олеснува работењето на компанијата, што би направила компанијата за да го зголеми користењето на електронското

комуницирање со купувачите, дали користи блогови, дали користи други социјални мрежи освен facebook и кои, дали има база на податоци за купувачите, како и кои интернет стратегии ги користи компанијата во нејзиното работење.

2.1. Анализа на резултатите од истражувањето

Дескриптивната анализа ги опфаќа прашањата кои се однесуваат со општите податоци за компаниите.

1. Што е Вашата компанија?	%
• Продажен салон	10
• Трговско претпријатие	70
• Производно - продажно претпријатие	10
• Претставништво на странска компанија	10
2. Колку години работи Вашата компанија?	
• До 2 години	
• Од 2 до 5	3
• Од 5 до 10	2
• Над десет години	5
3. Колкав број вработени има Вашата компанија?	
• До 10	2
• Од 10 до 50	5
• Од 50 до 250	3
• Над 250	0
4. Каде ги остварувате вашите работни активности?	
• Во Скопје	6
• Во Скопје и други градови во Република Македонија	4

Табела број 1: Општи податоци за компаниите
Извор: Сопствено истражување

На прашањето: Дали користите интернет во Вашето работење? 8 од компаниите одговориле со да, 2 интернетот го користат по потреба, додека нема компании кои интернетот го користат по потреба или не го користат.

Дадените одговори истакнуваат дека компаниите го користат интернетот во своето работење, од кои дури 80% постојано, а 20% по потреба што укажува на свесноста од значењето на користењето на интернетот во работењето на компаниите.

Користењето на интернетот од бизнис аспект денес веќе не е избор, туку е “a must”. Дури 63% од потенцијалните клиенти кога пребаруваат некаков бизнис онлајн, најпрво го прават тоа на еден од социјалните медиуми. Користењето на интернетот, доколку се реализира на правилен начин, е еден од најдобрите методи за комуникација со клиентот [8].

На прашањето: Дали имате **WEB** страница? 9 од анкетираните компании одговориле со да, а 1 дека нивната WEB страница е во подготовка.

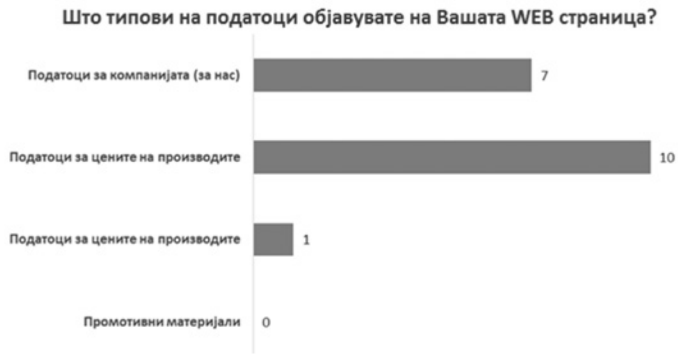
Графикон број 1: Примена на интернетот во работењето
Извор: Сопствено истражување

Графикон број 2: Значењето на WEB страницата
Извор: Сопствено истражување

Вака изнесените одговори покажуваат дека компаниите се свесни колкаво е значењето на WEB страницата за подобрување на успешноста во нивното работење.

WEB страницата е основното јадро на онлајн присуството и дигиталната маркетинг стратегија. Професионалната WEB страница го опишува бизнисот, обезбедува опис на вработените, како и услуги и производи кои се нудат. Таа нуди информативни податоци кои може да се пребаруваат на интернет и се навистина достапни од кој било уред кој има интернет врска. Достапноста на интернет на мобилни и преносни електронски уреди ја зголемува потребата за WEB страницата да биде достапна на овие уреди. Во 2016 година, 53% од компаниите (10+ вработени) во Република Македонија имаат веб страна што е далеку под просекот на европско ниво од 77%. Од компаниите кои поседуваат веб страна, само 27% имаат опција за онлајн аплицирање за работа и рекламирање на отворени работни позиции [9].

На прашањето: Што типови содржина објавувате на Вашата **WEB** страница? Сите од компаниите одговориле дека објавуваат податоци за производите и услугите со кои работат, а 7 од нив одговориле дека објавуваат податоци за компанијата и 1 за цените на производите.

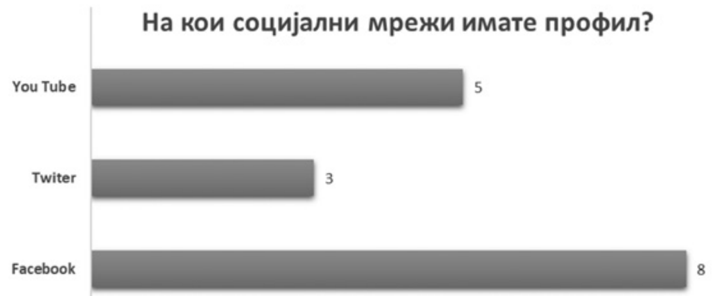


Графикон број 3: Типови податоци што се објавуваат на WEB страниците
Извор: Сопствено истражување

Околу 49 отсто од деловните субјекти во Македонија имаат веб-страница. Од нив 80 проценти нудат опис на производите/услугите и ценовниците, 59 проценти наведуваат линкови/референции до своите профили на социјалните медиуми, а 21 проценти обезбедуваат он-лајн нарачување или резервирање. Во 2016 година, 10,3 проценти од деловните субјекти со 10 или повеќе вработени воделе е-трговија, купувале или продавале стоки или услуги преку компјутерски мрежи (веб или EDI). Притоа, е-продажба реализирале шест проценти, а е-купувања 5,8 проценти (Сител телевизија, 2017).

Во 2016 година само 20% од компаниите со веб страна понудиле опција за онлајн нарачки и резервации (shopping cart) додека просекот на европско ниво е 24%. Овој просек во Холандија, Чешка и Шведска е приближно 40%. Процентот на компании со веб кои имаат функционалност за следење онлајн, нарачката изнесува 11% во 2016 година и е еднаков со процентот во Европската унија. Само 5.8% од компаниите направиле е-набавки со што сме на последното место во споредба со европските земји [10].

На прашањето: На кои социјални мрежи имате профил? 8 од компаниите одговориле дека имаат профил на Facebook, 3 дека имаат профил и на Twiter, а 5 и на You Tube.

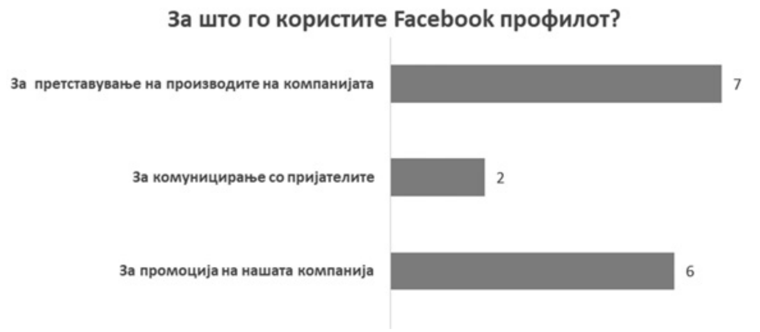


Графикон број 4: Профили на социјалните мрежи
Извор: Сопствено истражување

Добиените одговори на компаниите укажуваат дека тие најмногу го користат Facebook, потоа You Tube и накрај Twiter. Ваквите одговори упатуваат на заклучокот дека компаниите во Република Македонија најмногу го користат Facebook профилот кој има и најголема популарност. Ефикасното користење на социјалните медиуми може да придонесе кон остварување бројни придобивки за компанијата. Покрај личното насочување кон клиентите промовирањето на новите производи и услуги, една од најважните придобивки е директната интеракција со сегашните и потенцијалните клиенти.

Во 2016 година, 53% од компаниите во Република Македонија искористиле барем еден социјален медиум, додека 51% од компаниите користеле социјални мрежи. 39% од компаниите имаат веб страна и користат социјални медиуми. Карактеристично е што во Македонија компаниите користат само еден тип медиум односно 37% додека на ниво на Европа овој процент е 24%. Поголем број од македонските компании плаќаат за рекламирање базирано на интернет таргетирање, односно 17% додека за Европа ова изнесува 9% [9].

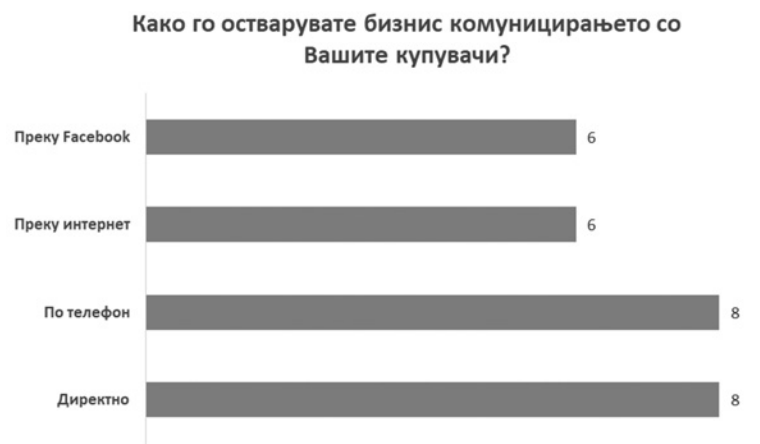
На прашањето: За што го користите Facebook профилот? 6 од компаниите одговориле дека профилот го користат за промоција на компанијата, 2 за комуницирање со пријателите, а 7 од компаниите профилот го користат за претставување на производите на компанијата.



Графикон број 5: Цел на користење на Facebook профил
Извор: Сопствено истражување

Анкетираните компании Facebook профилот најмногу го користат за претставување на производите на компанијата и за нејзина промоција. Ова значи дека овој профил одговара за спроведување промотивни активности, затоа што профилот го користат голем број лица кои имаат интернет врски. Присуството на социјалните медиуми претставува важен и моќен промотивен елемент кој овозможува брзо ширење на информациите, но истовремено гради и долгорочни релации со широката популација.

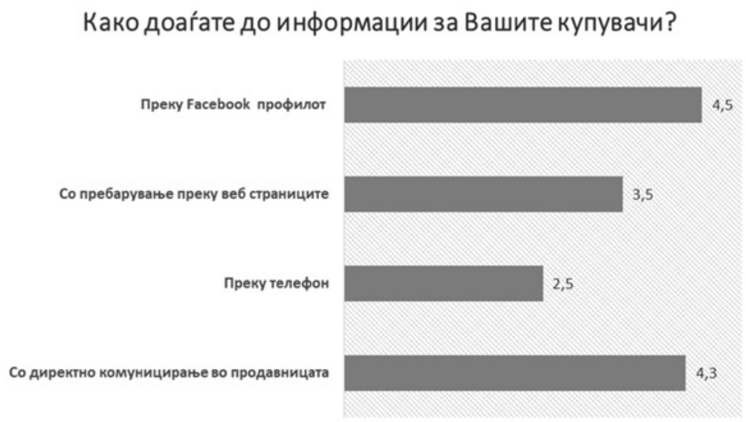
На прашањето: Како го остварувате бизнис комуницирањето со Вашите купувачи? 8 од анкетираните одговориле дека тоа го прават директно, 8 дека комуницирањето го остваруваат преку телефон, 6 преку интернет и 6 преку Facebook.



Графикон број 6: Начин на комуницирање со купувачите
Извор: Сопствено истражување

Дадените одговори покажуваат дека компаниите ги користат сите форми на комуницирање со своите купувачи, како директни така и електронски. Иако се користат и електронските и директните врски за комуницирање со купувачите, сепак поголема предност се дава на директните отколку на електронските начини на комуницирање со купувачите.

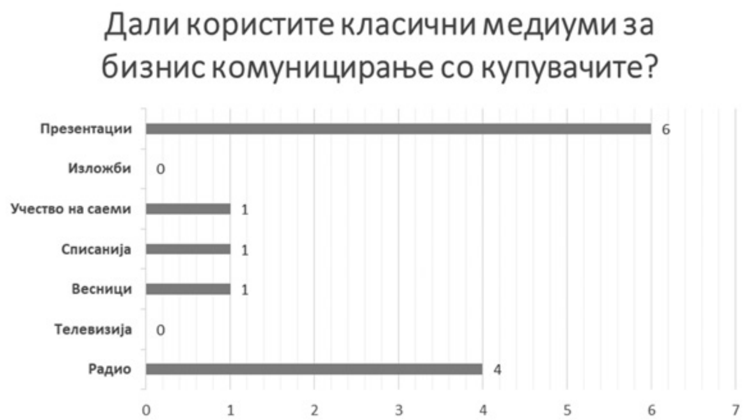
На прашањето: Како доаѓате до информации за Вашите купувачи? 8 од компаниите одговориле дека тоа го прават директно во продавницата, 6 преку телефон, 6 со пребарување на WEB страниците и 5 преку Facebook профилот.



Графикон број 7: Начин на добивање информации за купувачите
Извор: Сопствено истражување

Дадените одговори покажуваат дека компаниите за да дојдат до информации за купувачите користат директно комуницирање, но и електронски средства односно комуницираат преку телефон, пребаруваат веб страници и го користат Facebook профилот.

На прашањето: Дали користите класични медиуми за бизнис комуницирање со купувачите? 4 од анкетираните одговориле дека го користат радиото, 6 практикуваат да организираат презентации и по 1 дека користат весници, списанија и учество на саеми.

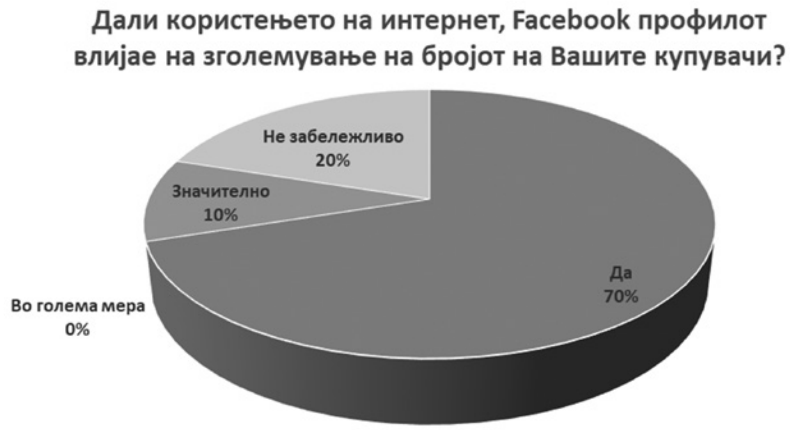


Графикон број 8: Употреба на класичните медиуми
во бизнис комуникацијата со купувачите
Извор: Сопствено истражување

Дадените одговори на ова прашање упатуваат на заклучокот дека компаниите од класичните медиуми најмногу ги користат презентациите, а потоа радиото. Ова е резултат на специфичноста на производите кои се предмет на нивното работење.

2.2. Користење на електронското комуницирање

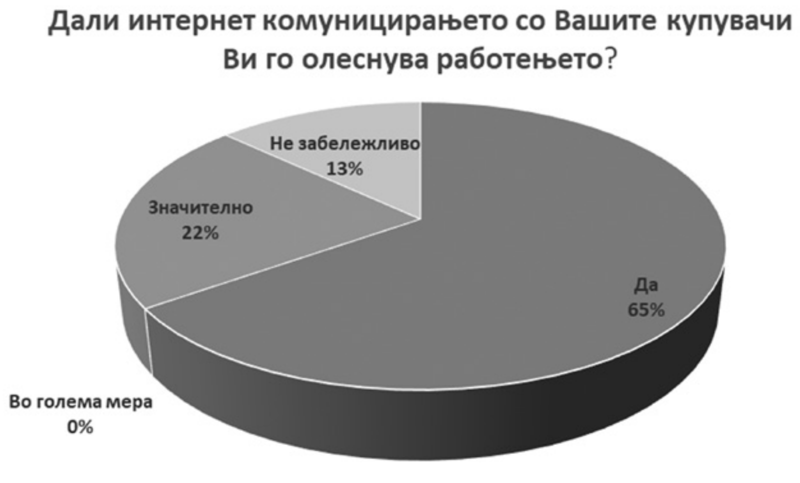
На прашањето: Дали користењето на интернетот, **Facebook** профилот влијае врз зголемување на бројот на Вашите купувачи? 7 од анкетираните одговориле со да, 1 значително, 2 незабележливо, а ниту еден со не.



Графикон број 9: Поврзаноста на користењето на интернетот и бројот на купувачи
Извор: Сопствено истражување

Дадените одговори укажуваат дека интернетот, односно Facebook профилот има големо влијание врз зголемување на бројот на купувачите на компаниите. Ова од причини што до интернетот, односно до Facebook пристап имаат голем број корисници на овој начин на комуницирање.

На прашањето: Дали интернет комуницирањето со Вашите купувачи Ви го олеснува работењето? 6 од анкетираните одговориле со да, 2 со значително и 2 со незбележливо.



Графикон број 10: Влијанието на интернет комуникацијата со купувачите врз работењето на компанијата
Извор: Сопствено истражување

Одговорите на ова прашање, исто така, укажуваат на состојбата дека интернет комуницирањето влијае врз подобрувањето на бизнис работењето на компаниите. Овие одговори ја потврдуваат тенденцијата на постојано растење на корисниците на интернетот.

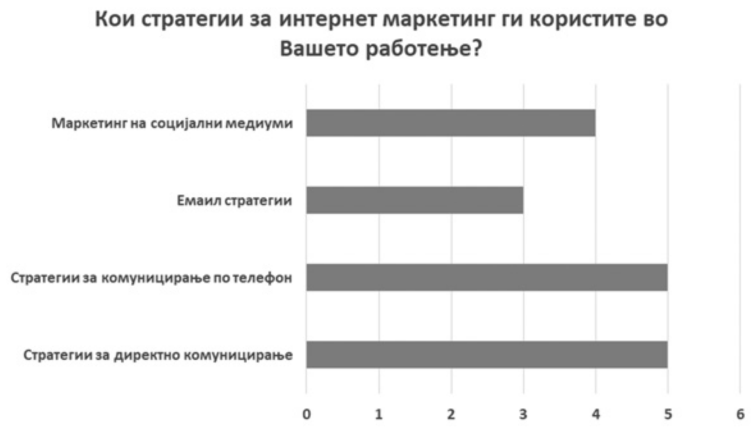
На прашањето: Што би направиле за да го зголемите користењето на електронското комуницирање со купувачите? Добиен е еден одговор кој се однесува на активностите на компанијата да развие веб страница со која би се подобрило електронското комуницирање со купувачите „Со изработка на веб страната, на којашто ќе бидат изложени поголем дел од артиклите од програмите коишто ги нудиме за широка дистрибуција низ целата држава, очекувам да се зголеми интересот за нив и нашите купувачи со текот на времето да добијат можност за онлајн купување".

Во 2016 година, 53% од македонските компании со 10+ вработени, употребуваат социјални медиуми, додека просекот на Европската унија е 35%. 22% од македонските компании плаќаат за рекламирање на интернет, а 17% плаќаат за интернет рекламирање базирано на таргетирање (кој било метод). 19% од компаниите имаат веб страна и плаќаат за рекламирање, додека на ниво на Европа овој просек е 24. 16% од компаниите употребуваат два или повеќе социјални медиуми. 7% плаќаат за интернет рекламирање базирано на геолокација на корисникот што е еднакво со европскиот просек. 8% од компаниите користат блогови или микроблогови (Twitter, Present и други) додека ова на ниво на Европска унија е застапено со 14%.

На прашањето: Дали користите други социјални мрежи освен **Faceebook**, 7 од анкетираните одговориле со да, а тие социјални мрежи се за 5 You Tube, а за 2 Twiter. Овие одговори покажуваат дека во Република Македонија помалку се користат другите социјални мрежи како што се: You Tube и Twiter.

На прашањето: Дали имате бази на податоци за Вашите купувачи? сите 10 анкетирани одговориле со да, што значи дека ги следат своите купувачи и имаат податоци за нив.

На прашањето: Кои стратегии за интернет маркетинг ги користите во Вашето работење? 5 од анкетираните одговориле дека користат стратегии за директно комуницирање, 5 користат стратегии за комуницирање по телефон, 3 користат е-маил стратегии и 4 користат стратегии за маркетинг на социјалните медиуми.



Графикон број 12: Стратегии на интернет маркетинг што се применуваат во работењето
Извор: Сопствено истражување

Одговорите на ова прашање покажуваат дека како стратегии за комуницирање со купувачите, компаниите повеќе го користат директното комуницирање и комуницирањето преку телефон. Од изнесените одговори од анкетираните компании може да се донесе заклучок дека тие при комуницирањето со своите клиенти најчесто го користат директното комуницирање кое се остварува со директни, лични контакти на продажниот персонал или преку телефон.

3. ЗАКЛУЧОК

Истражувањето при разработката на овој магистерски труд, од теоретски аспект, потврди дека денес во светот компаниите сè повеќе го користат интернетот како средство со кое се создава свесност, се предизвикува интерес, се доставуваат информации, се создава имиџ и бренд, се поттикнува истражување, се поттикнуваат луѓето да зборуваат и се добиваат мислења.

Трансакциите што се остваруваат преку интернет претставуваат интерактивни трансакции, односно тие се остваруваат како дијалог, прибирање информации, доставување известувања за производите и услугите, прибирање адреси за купувачите и производителите и слично.

Користењето на интернетот се реализира преку развивање интернет маркетинг стратегии со кои компаниите се ориентираат кон купувачите, односно кон задоволување на нивните потреби кои секогаш се иновативни со својата содржина и дизајн, различни од тие на конкуренцијата.

За спроведување маркетинг активностите преку интернет, потребно е да се подготви интернет маркетинг план со кој ќе се определат целите на интернет маркетингот, ќе се утврдуваат тактиките кои ќе се применуваат и ќе се предвидат средствата кои ќе се користат за реализација на интернет маркетинг активностите.

Социјалните медиуми денес претставуваат ефикасно средство за интерактивно директно комуницирање со купувачите и разменување информации за производите или услугите на компанијата.

Направеното практично истражување упатува на следниве заклучоци:

Компаниите во Република Македонија кои работат во дејноста на производството и прометот со алат, рачен и електричен, се свесни за предностите и неопходноста од користењето на интернетот и развивањето интернет маркетинг стратегии за да можат поуспешно да настапуваат на пазарот со користење на социјалните медиуми и другите инструменти што стојат на располагање со користењето на интернетот.

Овие компании главно се трговски претпријатија, а се јавуваат и претпријатија кои функционираат како производно продажно претпријатие и претставништво на странска фирма.

Овие компании функционираат на пазарот за алат веќе подолг период и ги познаваат своите купувачи и имаат соодветна база на податоци што укажува на фактот дека се работи за компании кои ја познаваат својата работа и се развиваат во дејноста во која работат.

Претпријатијата се од категоријата на мали и средни претпријатија кои работните активности ги извршуваат со бројот на вработени што варира од 10 до 250 лица. Сепак, согласно резултатите на истражувањето, трговската дејност, во Република Македонија во која има и најголем број регистрирани претпријатија ја извршуваат компании со помал број вработени.

Компаниите се свесни колкаво е значењето на користење на социјалните медиуми и веб страницата за подобрување на успешноста во нивното работење и остварувањето бројни придобивки за компанијата, особено земајќи го предвид фактот дека главните бизнис активности со производи од оваа дејност се остваруваат во главниот град, Скопје.

Сите компании го користат интернетот како средство за комуницирање, при што веб страницата е основното јадро на онлајн присуство на компаниите во интернет просторот. На овие страници се презентираат ценовниците, производите и услугите на компаниите и се даваат можности за интернет порачки. Со користењето на интернетот и социјалните медиуми се обезбедува поголем број купувачи, а се олеснува и работењето.

Од социјалните медиуми најмногу се користи Facebook, потоа You Tube и накрај Twiter. Facebook како профил на социјален медиум најмногу се користи за промоција на компанијата, за претставување на производите, спроведување промотивни активности, како и за комуницирање со пријателите. Според истражувањето, Facebook профилот има големо влијание за зголемување на бројот на купувачите на компаниите.

За комуницирање со купувачите, компаниите ги користат сите форми на комуницирање со нивните купувачи, како директни така и електронски, но сепак во поголема мера тоа го прават со директно комуницирање, по телефон. Од класичните медиуми за комуницирање се користи и радиото и се организираат презентации, а се користат весници и списанија како и учество на саеми.

Меѓутоа, иако компаниите имаат пристап до интернет и имаат свои веб страници и Фејсбук страници, согласно добиените резултати од истражувањето, сепак тие не ги користат соодветно можностите што се нудат од овој вид средства за комуницирање со купувачите.

Теоретските истражувања, пак, покажаа дека интернетот нуди голема можност за пласирање на информациите на компаниите и за спроведување и примена на интернет маркетинг стратегии, но неопходно е да се избере соодветната платформа со која ќе се постигне присутност на интернет просторот.

Согласно крајните резултати, компаниите – учесници во ова истражување, кои работат со продажба на алат, рачен и електронски, го користат интернетот и се постојано присутни на социјалните мрежи, од кои најмногу на Facebook, но не го користат целисходно за да излезат агресивно на пазарот поради што се препорачува целосно да ги искористат можностите за пласирање на нивните информации и за спроведување и примена на своите интернет маркетинг стратегии со цел поефикасна комуникација со своите клиенти, а оттука и подобри резултати во своето работење.

ЛИТЕРАТУРА

[1] Алексоска, К., (2010), “Интернет маркетинг дефиниции”, Достапно на: http://www.pretpriemac.com/internet-marketing-definicii/ [Пристапено на 15 Мај 2017 година].
[2] S’Gara, R.P., (2014), “The Difference between Online Marketing and Traditional Marketing”. Available at: https://www.inboundid.com/difference-online-marketing-traditional-marketing.html [Пристапено на 18 мај 2017 година].

[3] Chaffey, D. & Chadwick, F.E., (2015), *Digital Marketing - Strategy, Implementation and Practice*, London: Pearson Education Limited.

[4] Државен завод за статистика, (2016), „Структурни деловни статистики, дефинитивни податоци“, достапен на: http://www.stat.gov.mk/ [Пристапено на 6 мај 2018 година].

[5] Marketing365.mk, (2017), „Дигитална револуција: Се ближи крајот на доминацијата на ТВ огласувањето“, достапно на: https://marketing365.mk/digitalna-revolucija-se-blizi-krajot-na-tv-oglasuvanjeto/ [Пристапено на 18 мај 2017 година].

[6] БИЗНИС ИНФО, (2017), „Над 91% од деловните субјекти имале широкопојасен пристап на интернет“, БИЗНИС ИНФО, достапно на: http://bi.mk/nad-91-od-delovnite-subjekti-imale-shirokopojasen-pristap-na-internet/?utm_source=daily.mk&utm_medium=daily.mk [Пристапено на 18 Мај 2017 година]

[7] ДЗС, (2016), Соопштение за користење на информатичко - комуникациски технологии во домаќинствата и кај поединците, Available at: http://www.stat.gov.mk/ [Пристапено на 6 мај 2018 година].

[8] Трембелиева, И., (2017), Изјава за „АНАЛИЗА: Колку банките во Македонија користат социјални медиуми?“, Банкарство [online] Достапно на: https://bankarstvo.mk/%D0%B0%D0%BD%D0%B0%D0%BB%D0%B8%D0%B7%D0%B0-%D0%BA%D0%BE%D0%BB%D0%BA%D1%83-%D0%B1%D0%B0%D0%BD%D0%BA%D0%B8%D1%82%D0%B5-%D0%B2%D0%BE-%D0%BC%D0%B0%D0%BA%D0%B5%D0%B4%D0%BE%D0%BD%D0%B8%D1%98%D0%B0-%D0%BA/ [Пристапено на 23 мај 2018 година].

[9] Стојкоски, В., (2018), „ Македонските компании и интернетот“, *E-Commerce* [online] Достапно на: https://ecommerce.mk/2018/05/%D0%BC%D0%B0%D0%BA%D0%B5%D0%B4%D0%BE%D0%BD%D1%81%D0%BA%D0%B8%D1%82%D0%B5-%D0%BA%D0%BE%D0%BC%D0%BF%D0%B0%D0%BD%D0%B8%D0%B8-%D0%B8-%D0%B8%D0%BD%D1%82%D0%B5%D1%80%D0%BD%D0%B5%D1%82%D0%BE%D1%82/ [Пристапено на 23 мај 2018 година].

[10] Митрева, Г., „Предности на интернет маркетингот во однос на традиционалниот маркетинг, Е - Бизнис проекти“, available at: e-biznisi.net/index.php?option=com, [Пристапено на 16 мај 2018 година].

THE IMAGE MANAGEMENT STRATEGY THROUGH SOCIAL NETWORKS. AN ANALYSIS OF THE BANKING ENVIRONMENT IN ROMANIA

Victor-Alexandru Briciu[1]
Arabela Briciu[2]
Ștefania - Maria Găitan[3]

DOI: https://doi.org/10.31410/EMAN.2019.583

Abstract: *Online self-presentation methods are becoming more and more difficult to manage today because communication technology limits user control over the information they use to strategically present themselves. By comparing older communications platforms (e.g., online chat rooms) where all the information was provided, today's web is defined by user-generated content and allows both sides to communicate in a public environment. While self-presentation and impression management are similar concepts that are closely related, there is a consensus in the literature that impression management is a process by which individuals try to control the image that others are forming about those individuals or organizations. The size and diversity of online social networks are associated also with strategic self-representations as actions in which individuals present themselves in a way that suits the audience's expectations. Clearly, self-disclosure is an essential mechanism in developing and maintaining relationships. Therefore, the larger the size of the online social networks, the more individuals need to provide more information about themselves. The present paper aims to briefly present the ways of communication and promotion of the banks in Romania through the online environment and especially the identification and analysis of the ways in which those banks communicate and promote through the Facebook social network. To achieve the goal, a descriptive research was conducted, using the content analysis as the research method and the frequency analysis as a technique. A theoretical sampling and a partially guided sampling method based on accessibility (availability) was carried out. The universe of research was constituted by all the banks in Romania, according to the list from the official website of the National Bank of Romania (from April 2018), and the sample is represented by those banks in the list that meet the criterion of having an official website. Thus, the volume of the sample included in the analysis is 18 cases. The research tool (analysis grid) for the Facebook page contains four major categories of information provided directly on the page: visual content, written content (status) consisting of page postings, company base information and content of Facebook activities. Content analysis of the Facebook pages has proven to be a useful way to research the information promoted by banks in the online environment. Using Facebook can help banks communicate with as many customers as possible in the shortest possible time. In most cases, banks prefer the use of photos, videos, posts and events to promote their image by using social networks, such as Facebook.*

Keywords: *image, image management, social networks, banks, content analysis.*

---

1 Transilvania University of Brașov, Faculty of Sociology and Communication, Department of Social Sciences and Comunication, Eroilor Blvd., no. 25, Brasov City, Brasov County, Romania

2 Transilvania University of Brașov, Faculty of Sociology and Communication, Department of Social Sciences and Comunication, Eroilor Blvd., no. 25, Brasov City, Brasov County, Romania

3 M.A. in Management of Image Campaigns, Transylvania University of Brașov, Romania

1. INTRODUCTION - THE IMAGE MANAGEMENT STRATEGY THROUGH SOCIAL NETWORKS

Online self-presentation methods are becoming more and more difficult to manage nowadays because communication technology limits user control over the information they use to strategically present themselves. By comparing older communications platforms (e.g., online chat rooms) where all the information was provided, today's Web is defined by user-generated content and allows both sides to communicate in a public environment [1].

Constructing and maintaining positive self-images is important to achieving all these goals because research shows that unsuccessful self-presentation is often associated with rejection and criticism [2].

2. NEW MEDIA AND SOCIAL NETWORKS

The new mediums of communication are commonly referred to as new media. This concept was initiated with the development of the Internet, through well-known social networks, websites, blogs, etc. New media makes it possible for an increasing number of people to produce different information. In other words, new media does not refer to recently emerging technologies, but to some that already exist and which, through some changes, have attracted public attention [3].

The characteristics of the new media mean the transformation of media communication, largely determined by the complex interaction between the perceived needs, the political and competitive pressures and the social and technical innovations [4].

New media primarily refers to the Internet and includes websites, video games and social media. Communication through new media has some features common to traditional media.

Both have the advantage of being able to communicate to a broad audience and feature multiple types of channels that enable the use of a wide variety of multimedia tools to give an eye-catching form of message [5].

Lon Safko and David Brake have identified five behaviors that social media users may have about interacting in an online community:

1) will become active co-authors or will contribute to generating content;
2) will comment on the content created in the community or post reviews, feedback, or links to other content that may be considered useful to the community;
3) communicate the content of friends or colleagues;
4) they will simply look at the content and then return to their affairs;
5) they will ignore the content [6].

Social media is the next step of Web 2.0 technology development. Social media makes communication possible through all known online environments, so that these virtual communities include forums, virtual worlds, opinion sharing communities, social networks [7].

In conclusion, in the simplest way, social networks describe how individuals use technology and online practices to create content (opinions, perspectives, and experiences) to share on the Internet.

3. RESEARCH

The purpose of the study is to identify the main ways in which Romanian banks communicate and promote themselves online through new media and more specifically, by using the Facebook's social network.

A descriptive research was conducted using the content analysis as the research method for systematically examining the content of the communication, analyzing the messages and the text of the communication. In the online environment, content is quickly available and can be used to examine trends and patterns from the web [8].

Research corpus is constituted by all the banks from Romania (from the list from the official website of the National Bank of Romania) and the sample is represented by those banks that meet the criterion to have an official Facebook page: BCR, Transylvania Bank, BRD Group Société Général, Raiffeisen Bank, UniCredit Bank, Alpha Bank, Bancpost, Garanti Bank, Piraeus Bank, OTP Bank, Romanian Bank, Crédit Agricole Bank, Idea::Bank, Railway Commercial Bank, Intesa Sanpaolo Commercial Bank Romania, Leumi Bank Romania, Libra Internet Bank and Patria Bank. In the end, the volume of the sample included in the analysis is constituted of 18 cases and the period we conducted the analysis was April 2018.

The research tool is represented by a coding scheme for content analysis. This coding scheme for the Facebook page is based on four major categories of information, provided directly on the page. (1) Visual Content, (2) Written Content (Status), (3) Basic Information and (4) Activities.

The Visual Content category is composed of visual content of the photos and of video clips. The recording units for the visual content of the photos are types of photos, such as: photos of products/ services, logo, events, campaigns, advertisements, customer photos and the counting units are the total number of photos, albums, comments, rating and labels. The recording units for the video clips are the video types: about products/ services, about the company, events, contest, campaigns, advertisements, celebrity videos and the counting units are the total number of videos.

The Written Content (Status) category has the contextual unit defined the written content (status) that consists of page posting, the recording units are the product/ service posts, events, news, sharing experiences, and the counting units are the frequency of these posts: never, rarely, once every few weeks, 1-2 days a week, 3-5 days a week, once a day or several times a day.

The Basic Information category has the contextual unit defined by the basic information about the company. The recording units are the company address, e-mail address, site address, telephone number, broad description, history/ story, important moments, sign-up date on site and the counting units are the frequency of sharing this information.

The Activities category has the contextual unit defined by the content of Facebook activities, the recording units consist of apps, reviews, notes, groups and pages, events, likes and followers. Counting units are the frequency of activity information sharing, and in the events these units are, in fact, the total number of types of events (such as musical events, competitions, sporting events, cultural events, corporate and banking events).

4. RESULTS

The visual content is the richest and it's represented especially by the profile picture and the cover that are posted on Facebook platform, sending in explicit way essential information about banks. Regarding the profile pictures, the most used are the logo photos (78%), followed by the those with the advertising campaigns (10%), by the events photos (5%), by the photos with ads (3%) and by those with products/services and clients (2%). We can observe the significant difference between the first and the last picture categories. Banks choose the logo pictures to be identified easier by the customers. Selecting a profile picture confirms what value the banks have and the way they want to be perceived. Cover pictures are the most common where those with the advertising campaigns (30%), followed by the products/ services photos (22%), by the ones with ads (21%), by the events ones (19%), the photos with clients and the logo ones (4%). The bank with the highest number of photos is BCR and the one with the least number of photos is OTP Bank. Bancpost has the largest number of profile pictures, whereas Raiffeisen Bank, OTP Bank, and Patria Bank have just one profile picture. The bank with the largest number of cover photos is Garanti Bank and the one with the least number of cover photos is Alpha Bank. The bank with the largest number of photo albums is BCR, and the one with the least albums is Patria Bank. The number of likes of profile photos - the highest number was identified at BRD Société Générale and the lowest at Raiffeisen Bank and OTP Bank. In relation to cover photos, the most likes were at Garanti Bank and the least at Romanian Bank and Railway Commercial Bank.

The most frequent video clips are those about events (36%), followed by 28% videos with products and services, 19% by the ones with PR campaigns, 11% advertising and 2% videos about the company, competitions and those that feature a celebrity. The bank with the highest number of video clips is Transylvania Bank, while Leumi Bank does not have any video clip. Some banks have on their Facebook page recommended video clips (BRD Société Générale, Transylvania Bank, Bancpost, Piraeus Bank, Railway Commercial Bank and Libra Internet Bank) while others (BRD Société Générale, Raiffeisen Bank, Transylvania Bank, UniCredit Bank, Credit Agricole Bank Romania, Idea::Bank, Libra Internet Bank and Patria Bank) have a video instead of a photo for cover. These video clips have thousands of views and are always accompanied by text and sometimes links to other web pages. This analysis shows that on Facebook, banks use more photos than video clips.

The written content is represented by a status, defined by Facebook posts. Usually, the posts that contain text are accompanied by photos, video clips or links to other web pages. The most common posts were about products/ services (34%). These are followed by posts regarding events (31%), PR campaigns (13%), 10% represent sharing of different experiences, 6% news and shares. Analyzing the posting frequency of statuses, we discovered that most banks (32%) post several times a day, 26% post once per day, 21% post rarely, 16% post 3 to 5 days a week and 5% post 1-2 days a week.

The banks have different content in their menus about basic information:

- 100% the column with the site address and e-mail address,
- 88% the column about company description,
- 83% the column about phone number,
- 61% important moments,
- 50% headquarters address,
- 27% working schedule,
- 26% history/ story and Facebook signup date.

Regarding the last category (the Activities), data analysis shows that 61% of the banks have applications on the Facebook page. In relation to the reviews, 50% from the analyzed pages included this information. 72% of banks have notes on the page, while the events and the groups have been mentioned (50%) and pages (94%), referring to other pages, unofficial ones, of banks that are on Facebook. In the events cases, 23% of banks have organized/ participated to sporting and cultural events, 18% competitions and banking events, 13% events from the company and 6% musical events.

5. CONCLUSIONS

The content analysis of the Facebook pages turned out to be a useful method to explore the offered information by the banks on this social media platform. We have identified the main methods to promote and communicate on Facebook for the chosen banks: in the most cases the banks favor the use of photos, video clips, posts, and events to promote.

The richest content is the visual one. The banks favorite method to promote on Facebook is through posting photos (mainly logo and advertising campaigns). The cover photos are in a larger number than the profile ones. Those are followed by the video clips that also have a great impact on clients because they forward more information than the photos.

Another self-presentation method on Facebook is the written content, represented by posts. The most frequent posts are about products/ services. The banks are posting very often, the most utilized period of time being several times a day. For banks notoriety, the appreciations number and the followers are fundamental. On Facebook, those are of thousands in counting, showing the banks popularity.

This study offers an overall perspective on communication through new media in the banking sector. The banks choose to communicate and to promote themselves with the help of the Facebook tools to create an online presence. Banks are presenting themselves always in a favorable light and prefer the online promotion to reach a large number of people.

REFERENCES

[1] Rui, J. R., Stefanone, M. (2013) *Strategic image management online. Self-presentation, self-esteem and social network perspectives*, Information, Communication & Society, pp. 1-2.
[2] Rui, J. R., Stefanone, M. (2013) *Strategic image management online. Self-presentation, self-esteem and social network perspectives*, Information, Communication & Society, p. 3.
[3] Chiorean, L. (2015) *On New Media. A Theoretical Approach*, Revista Studia Universitatis Petru Maior, Târgu Mureș, p. 51.
[4] Fidler R. (2004) *Mediamorphosis. Să înţelegem noile media*, Idea Design&Print Publishing House, Cluj, p. 9.
[5] Pralea A. R. (2010) *Internet Communication: Changing Health Behavior*, Revista Română de Marketing, vol. 5, issue 2, pp. 128-130.
[6] Safko L., Brake D. (2009) *The Social Media Bible – Tactics, Tools and Strategies for Business Success*, Wiley, John Wiley & Sons, Inc, Hoboken, New Jersey, pp. 686-687.
[7] Tuten T. (2008) *Advertising 2.0. Social Media Marketing in a Web 2.0 World*, Praeger Publishers, Westport, Connecticut, p. 33.
[8] Kavoura A. (2014) *Social media, online imagined communities and communication research*, Emerald Group Publishing Limited, vol. 63, issue 6-7, p. 498.

ORGANIZATIONAL INNOVATION AND FIRM PERFORMANCE: A STUDY OF ALBANIAN FIRMS

Rezart Prifti[1]

DOI: https://doi.org/10.31410/EMAN.2019.589

Abstract: *Organizational innovation theories mostly utilize a dichotomous division between types of innovation and stages of innovation. For instance, the dual core theory dissects innovation in administrative and technical dimensions, hereby emphasizing the dissimilarities between technical and social systems of an organization (Daft 1978; Damanpour & Evan 1984). Moreover, the theory of innovation radicalness uses a different phrasing of organizational innovativeness, whereas the ambidextrous theory of innovation examines how an organization adopts certain innovations by identifying two separate stages. This paper's purpose is to investigate how organizational innovation affects two other aspects of innovation – technical and administrative innovation – which comprise the general innovation construct. The study was conducted employing a sample of 100 Albanian firms, where the organizational innovation model has been enquired to test the effect it exercises on general organizational innovativeness (simply referred to as innovation). This structure is further controlled by the influence of several independent variables, including company size, employee education level, production vs. service-based orientation, and whether the firm sources its research and development (R&D) activities internally or externally. Despite some inconclusive evidence, the empirical findings presented in this study demonstrate an overall positive relationship between organizational innovation and firm innovative activity, as related to technical and administrative innovation. To the best of the author's knowledge, this is the only Albanian study that measures organizational innovation and firm innovativeness.*

Keywords: *Organizational innovation, Technical innovation, Administrative innovation, Firm Innovativeness, Dual core theory, Innovation radicalness, Ambidextrous theory*

1. ORGANIZATIONAL INNOVATION PERSPECTIVE

Organizational innovation theories generally discriminate between types of innovation and stages of innovation. The dual core theory distinguishes between technical and administrative innovation, a conceptualization that refers to the different technical and social systems of the organization (Daft 1978; Damanpour & Evan 1984). In addition, the theory of innovation radicalness, pertains the division in two different terms. Terminology used to describe the division varies from authors. Duncan (1976) used "variation" and "reorientation", or "routine" and "non-routine". The most recognizable categories by researchers are *radical* and *incremental* innovation.

Lastly, the ambidextrous theory of innovation concentrates on how the innovation is adopted. Ambidexterity refers to "*the ability of a complex and adaptive system to manage and meet conflicting demands by engaging in fundamentally different activities*" (Bledow et al. 2009: 320). Theory, according to (Duncan, 1976) identifies two separate stages: initiation and implementation. Initiation includes all those activities such as problem perception, gathering information, attitude formation, evaluation, resource development. On the other hand, implementation includes activities and actions that modify the organization and the innovation process until the initial use of innovation becomes a routine process in the organization. Moreover, the author argues that in order for organizations to absorb necessary conflicts needed for the innovation process, companies need to align their structures with company's strategy over time.

[1] University of Tirana, Rr. Arben Broci. Albania

Regarding innovation, Tushman & O'Reilly (1996) argue that sequential ambidexterity can be ineffective, thus organizations have to explore in a simultaneous way. Research about organizational ambidexterity concepts in the last two decades has known a great interest (Gusenleitner 2016; O'Reilly & Tushman 2013). From the perspective of innovation organizations face different competing situations in the market, thereby requiring a combination of all models of organizational ambidexterity for exploitation and exploration. Whether it is sequential, simultaneous, or contextual ambidexterity it might be complementary or a combination of all (Katila & Chen, 2008) and act as a dynamic capability (O'Reilly & Tushman, 2008) in the pursue of innovation.

Nonetheless, such theories fail to include an important analytical factor such as the context, which is relevant while analyzing unfolding events of an innovative process. Damanpour & Gopalakrishnan (1998) argue that it is important to know environmental conditions, pertaining contextual developments, in which predictors of middle range theories are valid. To a certain extent, environmental change represents a separate dimension per se. In their work, Dess & Beard (1984) described three dimensions constituting the realm in which an organization competes: munificence, dynamism and complexity. According to Damanpour & Gopalakrishnan (1998) dynamism, characterizing environmental change, affects the most organizational innovation capabilities.

Many authors, looking and analyzing from different perspectives, identify several dimensions of innovations such as: technological (Daft 1978; Freeman & Soete 1997; F. Damanpour 1991; Shea 2005; Goffin & Mitchell 2010), administrative (Daft, 1978; Teece 1980; Škerlavaj, Song, & Lee, 2010), process (Abernathy & Utterback 1978), product (Abernathy & Utterback 1978; Lundvall 1985), etc. Different innovation dimensions affect analytical dynamics between organizational variables and the process or the outcome itself. Economists look at innovation from the perspective of how fast a firm can innovate in comparison with other firms, and see it as a process or practice that is new to industry (Gopalakrishnan 2000), hence different dimensions arise from this stand point. Organizational theory focuses on innovation magnitude, thus analyzing how many products or processes are new to the organization. This analysis will follow with the review of several dimensions of innovation surfacing from literature. It is representative, yet not exhaustive.

There are many dimensions of innovation that fall under the umbrella of organizational innovation. There are dimensions that pertain organizational resources such as: knowledge, learning orientation, strategic orientation, methods, organizational culture and management. Organizational innovation (OI), as defined by OECD (2005), refers to new organizational methods for business management in the workplace and/or in the relationship between a company and external agents. The same manual refers to OI as one of the four types of innovation. Relying on the resource-based view of the firm organizational innovation is an internal capability of the firm and relies on internal characteristics.

According to Wernerfelt (1984) a resource is anything being a weakness or a strength of a certain firm, tangible or intangible, such as brand names, knowledge, skilled personnel, contacts, machinery, procedures, capital, etc. Furthermore, according to such theory only firms with internal capabilities associated with special characteristics and certain resources will achieve competitive advantage, thus the superior performance. From this perspective, organizational innovation is a strong source and prospect of a competitive advantage (Camisón & Villar-López 2012; Hamel 2009).

Early research on innovation has been primarily conducted in the form of studies of administrative innovation (Richard L. Daft, 1978; Fariborz Damanpour & Evan, 1984; Kimberly &

Evanisko, 1981), concerning mainly changes in organizational structure, administrative processes and human dynamics or otherwise referring as social systems of an organization (Fariborz Damanpour, Szabat, & Evan, 1989). Even though early stages of innovation studies refer to administrative innovation, the main concern was about whether such administrative change would lead to technical innovations (Fariborz Damanpour et al., 1989). Later, organizational innovation was analyzed more as managerial innovation (Hwang, 2004) regarding organizational structures, processes, and HR systems. The OECD (2005) referred to OI as it is and later it was analyzed under the organizational innovation terminology by other authors as well (Armbruster, Bikfalvi, Kinkel, & Lay, 2008; Stoneman & Battisti, 2010). Later studies refer to OI with the terminology of management innovation (Birkinshaw et al., 2008; Fariborz Damanpour & Aravind, 2011; Gery Hamel, 2006) emphasizing management principles and practices with the intention to enhance firm performance and new knowledge approaches in management functions.

2. METHODOLOGY

Executive summary

In this study, in order to investigate the relation between organizational innovation and innovation we use multi-item scales from two studies. To measure the innovation we used (Škerlavaj, et., 2010)in-depth approaches aimed at achieving higher-level organizational learning. The elements of an organizational learning process that we use are information acquisition, information interpretation, and behavioral and cognitive changes. Within the competing values framework OLC covers some aspects of all four different types of cultures: group, developmental, hierarchical, and rational. Constructs comprising innovativeness are innovative culture and innovations, which are made of technical (product and service instrument which consisted of two constructs and 12 questions. In this model, the first construct, technical innovation, pertains to products, services and the organization's production process or service operations. The second one, administrative innovation, refers to rules, roles, procedures and organizational structures; this construct is related to the communication between organizational members. Of all questions, nine cover technical innovation as a first dimension and three pertain to administrative innovation as the second dimension of construct. For measuring organizational innovation we engaged a third dimension, which was developed by (Vaccaro, Jansen, van den Bosch, & Volberda, 2012), organizational innovation, a construct with 9 questions.

Our hypothesized model's structure allocates a cumulative group of 21 items to 3 constructs. The model further contains two major subdivisions: The *Innovation* structure, comprised of the technical and administrative innovation constructs and their respective measurement items, of which 9 are clustered into the former and 3 assigned to the latter; and the *Organizational innovation* separate structure measured by a further 9 items. This model expands upon the relationship between innovation and organizational innovation, and the role several controlling variables exercise on innovation, such as: firm size, employee skills and education, firm market orientation (product vs. service-based), and R&D source base (internal vs. external). Model fit assessment was conducted via structural equation modeling (SEM analysis), based on several indicators of goodness of fit: chi square test, Comparative Fit Index/Tucker-Lewis Index (CFI/TLI), Root Mean Square Error of Approximation (RMSEA) and Standardized Root Square Residual (SRMR), Akaike's Information Criterion/Bayesian Information Criterion (AIC/BIC). Limitations have been taken into account; our results suggest that increased overall firm innovativeness is indeed linked to an expansion of organizational innovation as well.

Operationalization

The a priori model assumed the existence of 3 latent constructs composed of a group of 21 items, subdivided into 2 major structures. The first comprises the *Innovation* latent structure measured by a cumulative of 12 items allocated to two constructs: technical and administrative innovation, containing 9 and 3 items each, respectively. This structure is further controlled by the influence of several independent variables, including: company size, employee education level, production vs. service-based orientation, and whether the firm sources its R&D activities internally or externally. The second major structure comprises the *Organizational innovation* construct and 9 corresponding items. Our main purpose is to determine the relationship between the two major structures, *Innovation* and *Organizational innovation* and the pattern through which such an association is conditioned (by the influence of the independent variables) and established. These latent constructs, their structure and association patterns were developed based on a comprehensive literature review of the topic. Further schematic reference is offered by Figure 1, which illustrates the hypothesized model's composition and correlations' pattern.

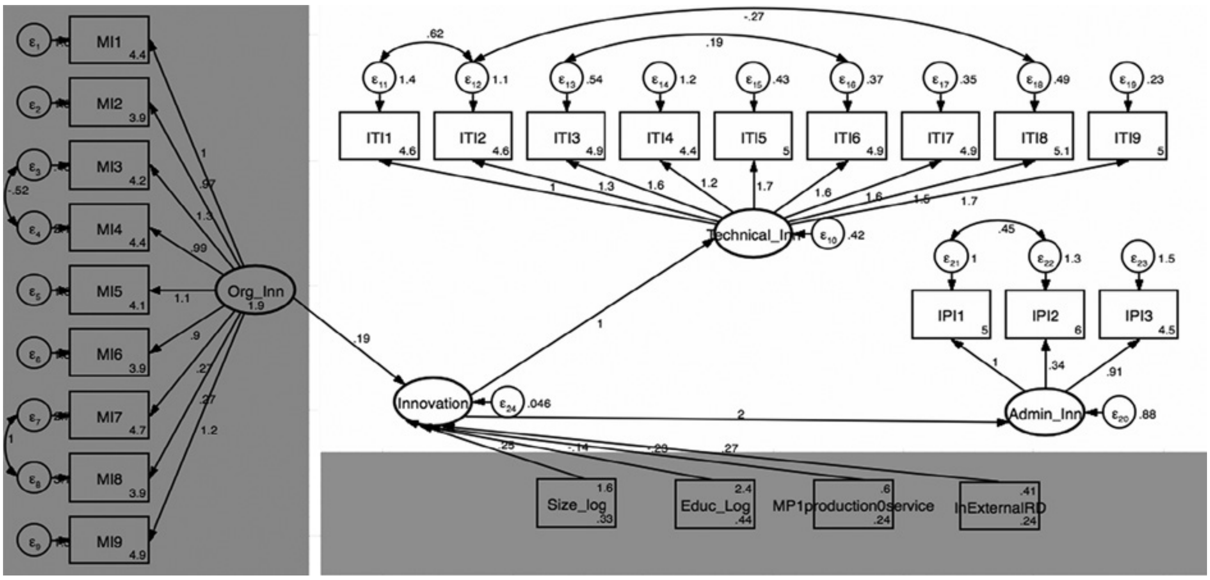


Figure 1. *Model Construction*
Source: Author

The a priori model was afterwards tested empirically through principal component analysis' (PCA) statistical techniques to explore the latent dimensional structure of innovation and the hypothesized model's feasibility in the observed Albanian context.

3. THE DATA

Data was gathered from a sample of 100 randomly-chosen, declared-innovative, small and medium-sized (SME) Albanian firms, as defined in the Albanian context of firm size (based on National Business Center designations). Given a sample size ≤ 100, it is recommendable that the model be structured into 5 or less constructs, each composed of at least 3 observable variables with communalities equal to, or higher than 0.6. This supposition was considered for our model's structural composition.

As summarized previously, the model comprises two separate major structures interconnected through tested relations under the role of the independent variables. The *innovation* structure comprises 12 items, and is further subdivided into 2 different constructs: administrative and technical innovation. The technical innovation construct, which measures product and service innovation, is measured by 9 variables. Administrative innovation, which is based on measurements of organizational processes, including: rules, procedures, and structure, is made up of 3 variables. The other structure incorporated into our model is composed of a single construct, *organizational innovation*, and is measured by 9 items. *Organizational innovation* measures respondents' ability to implement and cope with organizational change, restructuring, management systems, employee tasks and functions allocation, inter and/or intra-departmental communication structure and other organizational systems. Data was collected through a questionnaire, where respondents ranked their stance on issues raised using a 7-point Likert scale, ranging from 1(strongly disagree) to 7 (strongly agree). The model yielded a total of 3 constructs and 21 related items (all of which are further detailed on Table 1).

Table 1. Description of the 25 items, their means and standard deviation

Item		Variable Name	Description	Mean	Std. Deviation
Organizational Innovation	1	MI1	Rules and procedures within our organization are regularly renewed	4.88	1.70
	2	MI2	We regularly make changes in our employees' tasks and functions	4.14	1.99
	3	MI3	Our organization regularly implements new management systems	4.67	1.77
	4	MI4	The policy with regard to compensation has been changed in the last three years	4.58	1.99
	5	MI5	The intra- and inter-departmental communication structure within our organization is regularly restructured	4.31	1.99
	6	MI6	We continuously alter certain elements of the organizational structure	4.12	1.85
	7	MI7	Our employees may pursue different roles within the organization		
	8	MI8	We usually alter the way in which we set our objectives	3.84	1.91
	9	MI9	We regularly invest in developing our structure so as to make the most of our staff	5.28	1.81
Technical Innovation	10	ITI1	In new product and service introduction, our company is often first-to-market.	4.60	1.41
	11	ITI2	Our new products and services are often perceived as very novel by customers.	4.69	1.47
	12	ITI3	New products and services in our company often take us up against new competitors.	4.96	1.43
	13	ITI4	In comparison with competitors, our company has introduced more innovative products and services during the past 3 years.	4.49	1.42
	14	ITI5	We constantly emphasize development of particular products and services.	5.04	1.46
	15	ITI6	We manage to cope with market demands and develop new products and services quickly.	4.95	1.40
	16	ITI7	We continuously modify design of our products and services and rapidly enter new markets.	4.98	1.38
	17	ITI8	Our firm manages to deliver special products/services flexibly according to customers' orders.	5.14	1.38
	18	ITI9	We continuously improve old products and services and raise quality of new products.	5.09	1.41

Administrative Innovation	19	IPI1	Development of new channels for products and services offered by our corporation is an on-going process.	5.15	1.61
	20	IPI2	We deal with customers' suggestions or complaints urgently and with utmost care.	6.05	1.22
	21	IPI3	In marketing innovations (entering new markets, new pricing methods, new distribution methods, etc.) our company is better than competitors.	4.67	1.70

4. HYPOTHESIS

An in-depth literature review of the topics concerning the subject resulted in the formulation of the following hypotheses:

H1: Greater organizational innovation leads to higher firm innovativeness.

5. INDICATORS

Structural equation modeling (SEM) was selected for its ability to impute relationships between unobserved constructs from observable variables, whereas confirmatory factor analysis (CFA) is carried out to assess model fit and evaluate model structure. Criteria applied to assess if the model fit is acceptable include:

- Chi-square test: reasonable fit if p-value > 0.05
- Comparative Fit Index (CFI) / Tucker-Lewis Index (TLI): indicates a good fit if values get around 1
- Root Mean Square Error of Approximation (RMSEA): reasonable fit indicated if ≥ 0.05 to 0.08
- Standardized Root Mean Square Residual (SRMR): reasonable fit if ≤ 0.08

Analyses have been conducted using SPSS software. However, as this software does not provide statistical analysis for Confirmatory Factor Analysis (CFA), STATA software was used instead, in order to test the hypothesized a priori model structure.

6. DESCRIPTIVE STATISTICS

Confirmatory Factor Analysis

Construct validity was checked through convergent and divergent validity. Constructs' internal consistency, tested using Cronbach's alpha coefficient, contemplates question's relatedness in creating a single latent. Results reveal that organizational innovation showed a very good internal consistency with a Cronbach's alpha > .80. Meanwhile, technical innovation's reliability was even higher, as Cronbach's alpha value stood at above .90. However, Cronbach's alpha fell short of .70 for administrative innovation. Altogether, construct reliability is sufficient, considering alpha coefficients for all constructs are above and, only in one occurrence, close to .70, as shown on Table 2.

Table 2. Constructs' reliability indicators

	No. of items	Alpha	CR	AVE
Organizational Innovation	9	0.87	0.99	0.9
Technical Innovation	9	0.95	1.07	2.22
Administrative Innovation	3	0.68	0.78	0.57

Assessing model fit suitability requires using different indexes in order to reliably determine model compactness. Modification of model indices provided for value adjustments for most indicators bringing values to more appropriate goodness of fit ranges. Results show the model has an overall significance (as $p < 0.01$), as well as an acceptable goodness of fit. After the modification of indices, CFI/TLI values further grew approaching 1, indicating increased goodness of model fit. Adjustments affected RMSEA indicator as well; as it fell to a more suitable .084 from .093 (even before though, it was within the ≥ .10 threshold, a value that most researchers agree indicates poor fit). Simultaneously, the subsequent decrease of AIC and BIC values after adjustments were applied, which further entrenches model enhancement after indices alteration.

Moreover, composite reliability (CR) of the latent constructs, as shown on Table 2, is high. As such, items loaded into each factor manifest sufficiently high internal consistency. All CR coefficients valued at 0.70 and above are deemed acceptable. Additionally, average variance extracted (AVE) is based on estimations of the average amount of variance the latent construct explains, and the most recommended limit value is 0.5. Our constructs display relatively high values, thus evidencing most of the variance rests within the constructs.

Data analysis

SPSS output reveals that the KMO test value is 0.846, hence higher than (> 0.8), which indicates sufficiently compact correlating patterns, as well as substantiating the sample's adequacy and convenience for conducting further factor analysis to explore the latent factor structure (Table 6). Furthermore, Bartlett's test of sphericity is highly significant ($p < 0.001$), therefore rejecting the null hypothesis of the correlation matrix with an identity matrix at the 5% level, and suggesting variables are correlated. Such a result yields traceable relationships between the items. Test values generated are deemed suitable for further scrutiny under factor analysis and PCA.

Principal Component Analysis (PCA) is conducted, as depicted on Table 3, which displays the variance explained by the initial solution, extracted components, and rotated components after extraction. Results suggest extracting just one factor as there is only one identifiable eigenvalue valued at well over 1. However, as only one factor is extracted no rotation of squared loading's sums takes place.

Table 3. Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage
1	7.866	37.459	37.459	7.866	37.459	37.459

Extraction Method: Principal Component Analysis.

Displayed below (on Table 4) are all communalities before and after extraction. Communalities infer the proportion in each variable's variance that is associated to the underlying latent components (or component in the current context). In the first column all communalities are, by definition, assigned a value of 1 in order to reflect the Principal Component Analysis' (PCA)

initial assumption that every variance is common. Common variance is then restructured under the "Extraction" column, which for example, demonstrates that 68.5% of the variance related to IPI1 is common variance. Therefore, in other words, 68.5% of the variance observed in IPI1 is explained by our factor model (composed of 1 component).

Table 4. Equation factor loadings and communalities

	Organizational Innovation	**Technical Innovation**	**Administrative Innovation**	**Communalities (after extraction)**
MI1	1.000			0.61
MI2	0.971			0.575
MI3	1.301			0.814
MI4	0.987			0.497
MI5	1.085			0.69
MI6	0.896			0.585
MI7	0.274			0.53
MI8	0.265			0.603
MI9	1.154			0.762
ITI1		1.000		0.685
ITI2		1.324		0.698
ITI3		1.586		0.835
ITI4		1.176		0.68
ITI5		1.685		0.797
ITI6		1.640		0.863
ITI7		1.592		0.865
ITI8		1.532		0.746
ITI9		1.717		0.859
IPI1			1.000	0.685
IPI2			0.438	0.562
IPI3			0.719	0.665

7. RESULTS

The a priori hypothesized model was tested for suitability of goodness of fit, leading to a confirmation of our 21-item model composition's viability. Accordingly, data produced fits the hypothesized measurement model. Moreover, adjustments sustained after modification of model indices incurred better model fit suitability by gearing most of the values closer to suitable test coefficient ranges. Our main result is displayed on the table below.

Table 5. SEM factor weights

	Estimate	**S.E.**	**P**
Organizational Innovation → Innovation	0.188	0.056	0.001

As shown above, we discover that increased organizational innovation is linked to an enlargement of +0.188 ($p<0.001$) in firm innovativeness, thereby exhibiting a positive and significant relationship confirming the hypothesis raised.

8. FINDINGS

Observed results in this study indicate there is a link between organizational innovation and other dimensions of general firm innovativeness (innovation). These other dimensions, which for the purpose of this study comprise what has been defined as "innovation" in general, (or, what we have referred to interchangeably by the term "firm innovativeness"), have been widely referred to in literature as comprising changes in organizational structure that are related to administrative processes and the human ecosystem dynamics of an organization (Richard L. Daft, 1978; Fariborz Damanpour & Evan, 1984; Kimberly & Evanisko, 1981), and technical innovation as well. The primary rationale for a link between administrative processes innovation and technical aspects has been evidenced by (Fariborz Damanpour, Szabat, & Evan, 1989), who have argued that administrative changes in an organization have the potential to lead to technical changes, and thus administrative and technical innovation, together comprise the innovative capacity of an organization. Our results suggest that such a link can, in fact, be identified. However, limitations to this study, such as the relatively small sample size, a limited national context, and a general lack of consensus of specific measurements comprising all the three constructs, mean the nature of such a relationship and its underlying mechanisms have yet to be defined and addressed more thoroughly. Nevertheless, organizational innovation appears to be positively linked to administrative and organizational innovation, albeit not as strongly as anticipated.

REFERENCES

[1] Abernathy, W. & Utterback, J., 1978. Patterns of Industrial Innovation. *Technology Review*, 80(7), pp.40–47.

[2] Armbruster, H. et al., 2008. Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *Technovation*, 28(10), pp.644–657.

[3] Birkinshaw, J., Hamel, G. & Mol, M.J., 2008. Management Innovation. *Academy of Management Review*, 33(4), pp.825–845.

[4] Bledow, R. et al., 2009. A Dialectic Perspective on Innovation: Conflicting Demands, Multiple Pathways, and Ambidexterity. *Industrial and Organizational Psychology*, 2, pp.305–337.

[5] Camisón, C. & Villar-López, A., 2012. Organizational innovation as an enabler of technological innovation capabilities and firm performance.

[6] Daft, R.L., 1978. A Dual-Core Model of Organizational Innovation. *Academy of Management Journal*, 21(2), pp.193–210.

[7] Damanpour, F., 1991. Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. *The Academy of Management Journal*, 34(3), pp.555–590.

[8] Damanpour, F. & Aravind, D., 2011. Managerial Innovation: Conceptions, Processes, and Antecedents. *Management and Organization Review*, 8(2), pp.423–454.

[9] Damanpour, F. & Evan, W.M., 1984. Organizational Innovation and Performance: The Problem of "Organizational Lag." *Administrative Science Quarterly*, 29(3), pp.392–409.

[10] Damanpour, F. & Gopalakrishnan, S., 1998. Theories of organizational structure and innovation adoption: the role of environmental change. *Journal of Engineering and Technology Management*, 15(1), pp.1–24.

[11] Damanpour, F., Szabat, K.A. & Evan, W.M., 1989. The Relationship Between Types of Innovation and Organizational Performance. *Journal of Management Studies*, 26(6), pp.587–602.

[12] Duncan, R.B., 1976. The ambidextrous organization: Designing dual structures for innovation. *The management of organization*, 1, pp.167–188.
[13] Freeman, C. & Soete, L., 1997. *The Economics of Industrial Innovation* 3d ed., The MIT Press.
[14] Goffin, K. & Mitchell, R., 2010. *Innovation management: strategy and implementation using the pentathlon framework*, Palgrave Macmillan.
[15] Gopalakrishnan, S., 2000. Unraveling the links between dimensions of innovation and organizational performance. *The Journal of High Technology Management Research*, 11(1), pp.137–153.
[16] Gusenleitner, N., 2016. Practical Implications of the Ambidexterity Concepts, 1.
[17] Hamel, G., 2006. The Why, What, and How of Management Innovation. *Harvard Business Review*, (February), pp.1–15.
[18] Hamel, G., 2009. Moon Shots for Management.
[19] Hwang, A.-S., 2004. Integrating Technology, Marketing and Management Innovation: Research-Technology Management: Vol 47, No 4. *Research-Technology Management*, 47(4).
[20] Katila, R. & Chen, E.L., 2008. Effects of Search Timing on Innovation: The Value of Not Being in Sync with Rivals. *Administrative Science Quarterly*, (53), pp.593–625.
[21] Kimberly, J.R. & Evanisko, M.J., 1981. Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of management journal*, 24(4), pp.689–713.
[22] Lundvall, B., 1985. *Product Innovation and User-Producer Interaction*.
[23] OECD, 2005. *The Measurement of Scientific and Technological Activities, Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition*,
[24] O'Reilly, C.A. & Tushman, M.L., 2013. Organizational Ambidexterity: Past, Present and Future.
[25] Shea, C.M., 2005. Future management research directions in nanotechnology: A case study. *Journal of Engineering and Technology Management*, 22(3), pp.185–200.
[26] Škerlavaj, M., Song, J.H. & Lee, Y., 2010. Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert Systems with Applications*, 37(9), pp.6390–6403.
[27] Stoneman, P. & Battisti, G., 2010. The diffusion of new technology. *Handbook of the Economics of Innovation*.
[28] Teece, D.J., 1980. The Diffusion of an Administrative Innovation. *Management Science*, 26(5), pp.464–470.
[29] Tushman, M.L. & O'Reilly, C.A., 1996. The Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. *California Management Review*, 38(4).
[30] Vaccaro, I.G. et al., 2012. Management Innovation and Leadership: The Moderating Role of Organizational Size. *Journal of Management Studies*, 49(1), pp.28–51.
[31] Wernerfelt, B., 1984. A Resource-Based View of the Firm. *Strategic Management Journal*, 5(2), pp.171–180.

GENDER INEQUALITY ON THE MACEDONIAN LABOUR MARKET

Aleksandra Lozanoska[1]
Elizabeta Djambaska[2]
Vladimir Petkovski[3]

DOI: https://doi.org/10.31410/EMAN.2019.599

Abstract: *The labour market is facing different forms of inequality and discrimination against workers on the basis of gender, age and health. Gender gaps are one of the most pressing challenges. Globally, women are substantially less likely than men to participate on the labour market and to find jobs. Their access to quality employment opportunities is limited. Many researches have shown that there is a significant difference between the genders, in terms of the wage levels, occupation, working hours, economic status, duration of the unemployment etc.*

The research hypothesis of the paper is that Republic of Macedonia has gender inequality on its labour market, seen through different position of men and women regarding their economic activity, employment and unemployment. The aim of the paper is to identify the level of gender inequality and the differences between men and women on the Macedonian labour market.

The paper consists of two segments. The first is focused on the theoretical aspects of the gender inequality, as well as on the measures and indicators which can determine the scale of gender inequality. In the second part, the situation on the Macedonian labour market regarding the position and differences between men and women is observed. For that purpose, the economic activity, employment and unemployment of men and women (by age, educational attainment, economic status, working hours, sectors of activity, occupations, wages and other) is analyzed.

The results of the analysis show that the position of women was and remains worse than of the men. It is seen in their lower participation in the economic activity and employment in the country, in the higher unemployment rates, longer unemployment, lower wages, in an increase of the average time to find work, in the proportion of women in traditionally female occupations etc. The gender inequality demands more attention in order to improve existing legislation and to implement labour market policies which will ensure higher participation of women on the labour market. Therefore, the paper, also, notes some recommendations to overcome the unfavorable situation of women on the Macedonian labour market.

The study of the gender inequality on the Macedonian labour market is made for the last decade, using the available data from the State Statistical office of the Republic of Macedonia. For the purpose of the research, reports, data and statistical analyses on gender inequality from different international institutions (Eurostat, World Bank, World Economic Forum and International Labour Organization) are also used. Concerning the methodology, the study is based on the qualitative methods such as: analysis of literature and documents and deductive reasoning, as well as on the quantitative method of descriptive statistics.

Keywords: *gender inequality, labour market, employment, unemployment, Republic of Macedonia*

[1] Ss. Cyril und Methodius University in Skopje, Institute of Economics – Skopje, Prolet 1, Skopje, Republic of Macedonia

[2] Ss. Cyril und Methodius University in Skopje, Institute of Economics – Skopje, Prolet 1, Skopje, Republic of Macedonia

[3] Ss. Cyril und Methodius University in Skopje, Institute of Economics – Skopje, Prolet 1, Skopje, Republic of Macedonia

1. INTRODUCTION

Gender gap on the labour market remain a pressing global challenge. The inequality between women and men can be seen in two ways. The first is related to the fact that men and women may decide to achieve different levels of education, resulting in a difference in productivity. Such differences in wages can be justified, because they are based on a different contribution of the employees to production. The second, may involve differences in rewarding women and men for equal productivity, and this falls within the domain of discrimination.

Over the past decades the position of women was constantly worse compared to men, because their participation in economic activities and employment was lower, unemployment rates were higher, the average time taken to find a job was longer, and the proportion of women in typically female occupations was rising.

The aim of the paper is to identify the level of gender inequality and the differences between men and women on the Macedonian labour market. The analysis is based on the position of men and women regarding their economic activity, employment and unemployment. The research attempts to identify in which areas, in the last decade, the gender differences are the most pronounced.

2. LITERATURE REVIEW

There are many studies which discuss the gender inequality on the labour market and most of the findings show that the gap stems mainly from the differences in wages, work hours and occupations between men and women.

The researchers who deal with the problem of gender inequality (Bergmann 1974; Hartmann 1976; Kalinowska-Sufinowicz 2013; Kryńska and Kwiatkowski 2013) usually consider that it derives from the labour market imperfections, i.e. from its institutional structure. One of the most common opinions among the researchers of this aspect is that some limitations regarding the employment and remuneration are reasons for gaps between men and women (Arrow 1972, pp.3-5; Hartman 1976, pp.137-140; Stiglitz 1973, pp.287-289; Zellner 1972, pp.157-159). The study made by S. Shulman (1992, pp. 434-439) or A. Giddens (2005, pp. 133-134) shows that occupational gender inequality usually is a result of the historical conditions and sociocultural norms. (Domagala, 2016)

There are studies which confirm that the gender inequality influences the stock of human capital of the next generation. Sen (1990) and Klasen and Wink (2003) argue that asymmetries in employment and income undermine women's bargaining power within the household. Because the increase in female education levels renders women's time more expensive, families tend to reduce the number of children they have and spend more on them. This lead, on average, to higher income per capita (Lagerlof 2003).

There is an argument that jobs are highly gendered, with a tendency for high-status, high-paid jobs to be male-dominated because they have traditionally been perceived as 'masculine' (Haralambos & Holborn, 2008). With respect to gender-based discrimination, despite substantial progress made in promoting gender equality and narrowing gender gaps in the world of work during the last half a century, much of women's work remains in gender-stereotype occupations that are more precarious and vulnerable, and with less pay than men's, and this is across the world (ILO, 2010). As a consequence, women are disproportionately more affected by decent work deficits,

and hence poverty, than men. Women are also the main care-providers in society, though such work is largely unpaid, statistically unrecognized, and economically unaccounted for.

The researches confirm that the gender labour gaps may affect economic performance in several ways. One of them is the underutilization of talent associated with women's lower participation in the labour market. Increasing their participation would imply an increase in a country's potential GDP and per capita income (McKinsey Global Institute 2015; ILO Research Brief No. 10 2017). Blackden et al. (2006) argue that gender inequality in education reduces both the actual and potential stock of human capital.

3. GENDER INEQUALITY ON THE MACEDONIAN LABOUR MARKET

The analysis of the gender inequality on the Macedonian labour market is based on the indicators: activity rate, employment and unemployment rate, participation in part time work, annual average gross wage, economic status and occupation, all calculated by gender. For the purpose of the research the data from the State Statistical Office (SSO) of the Republic of Macedonia, for the period 2000-2017 is used.

In the observed period (2000-2017), the activity rate, both for men and women, has a tendency of increase. In the entire period the value of this indicator for women is significantly lower for around 22-25 percentage points (Figure 1). It shows that very large percentage of women are inactive. This is a result of their long-term historical and traditional role as housewives, who stay home and take care of the families. Although the situation is slightly changing, it is necessary to take measures to activate larger number of women on the labour market.

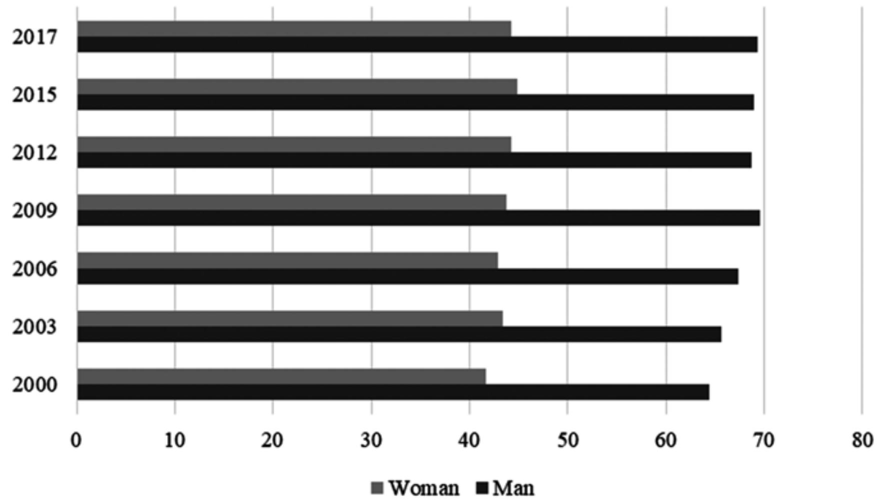


Figure 1: Activity rate by gender, 2000-2017
Source: State Statistical Office of the Republic of Macedonia, Labour Force Survey 2000-2017
http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=3

The differences regarding the employment rate by gender can be seen in figure 2. The employment rate of women is lower for more than one and half times. In 2000 the value of this indicator was 27.1% (women) and 44.7% (men), while in 2017 it was 34.6% and 53.6%, respectively. Although the employment rates of women, starting from 2012, are continuously increasing, the differences are deepening, because those of men are rising more intensively.

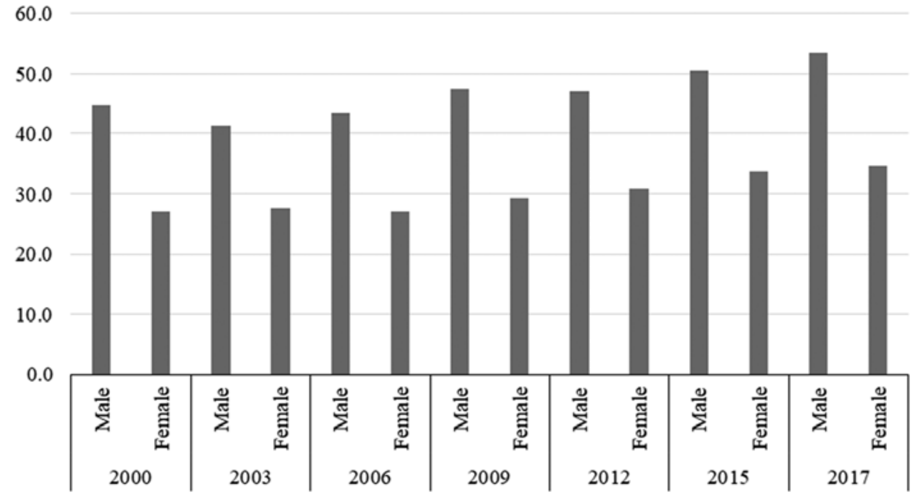


Figure 2: Employment rate by gender, 2000-2017
Source: State Statistical Office of the Republic of Macedonia, Labour Force Survey 2000-2017
http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=3

The available data on the unemployment by gender show that the unemployment rate of women was higher in 2000, 2006 and 2009 (Figure 3). However, it has a tendency to decrease and from 34.9% (2000) reached 21.8% (2017). The unemployment rate of men was highest in 2003 (37.0%) and has decreased to 22.7% in 2017. This implicates that the decrease of the women unemployment rates is more emphasized.

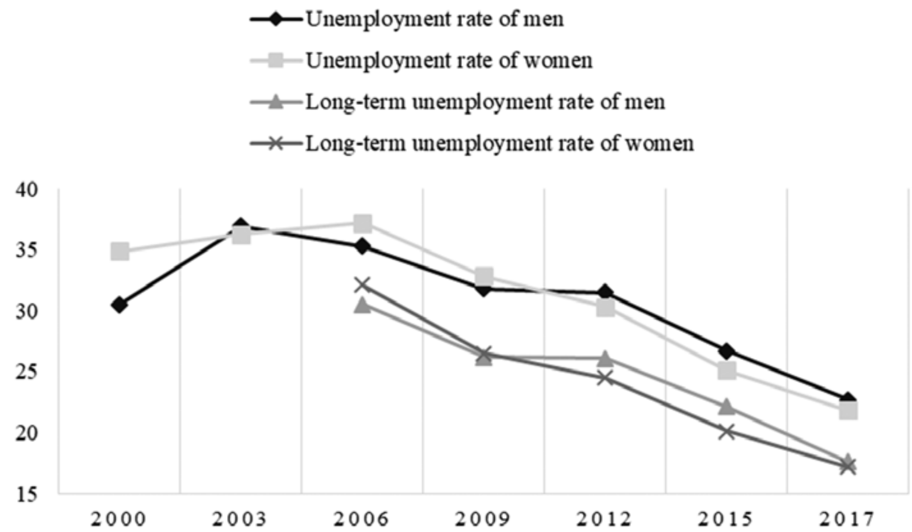


Figure 3: Unemployment rate and long-term unemployment rate, by gender, 2000-2017
Source: State Statistical Office of the Republic of Macedonia, Labour Force Survey 2000-2017
http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=3

The long-term unemployment rate, in the period 2006-2017 (for which there is an available data) is decreasing both for men (from 30.5% to 17.6%) and women (from 32.1% to 17.2%), but faster for the second ones (Table 1). Despite the declining, the long-term unemployment rate is still high. It may cause a large proportion of men and women to lose motivation for work according their education, to compete with younger labour force with newer and contemporary knowledge, to loss the investments in human capital etc.

Regarding the occupations by gender, in the period 2003-2017, the highest participation, both for men and women, have the elementary occupations (around 20%) and service and sales occupations (from 15 to 18%). The employed men are more involved in the craft and related trades occupations and their participation is in the interval of 17-18%. The women are more engaged in the occupations as professionals, with participation which has risen from around 13% (in the period 2003-2009) to more than 19% (in the period 2012-2017) and as technicians and associate professionals, with share from 11-15%. The changes in the employment by occupations show that women are more likely to work as experts, scientists or technicians (SSO, LFS, 2017).

The gender structure of the employees according the economic status points to smaller participation of women as employers and self-employed and higher share as employees and unpaid family workers. The portion of women as unpaid family workers, usually engaged in the agriculture, although is characterized with decrease from 18.1% in 2003 to 10.9% in 2017, was and remains higher than men. The slight increase of their participation as self-employed (from 3.8% in 2003 to 6.0% in 2017) illustrates that women more often present entrepreneurial skills (SSO, LFS, 2017).

One of the gender inequality indicators is the participation of men and women in part-time work. The available data points out that women have relatively smaller share in part-time work than men, which, also, declines over time. In 2000 their share was more than 11 percentage points lower than of men, while in 2017, the difference was nearly 18 percentage points (Table 1). These changes can be considered as unfavorable, since women more often need to have possibility to work part-time, especially for taking care of their family.

Table 1: Participation of men and women in full time and part time employment, 2000-2017

	Total			**Full time**			**Part time**		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
2000	549846	61.8	38.2	510140	62.2	37.8	39706	55.8	44.2
2003	545100	60.0	40.0	446200	60.3	39.7	98900	58.7	41.3
2006	…	…	…	…	…	…	…	…	…
2009	629901	61.8	38.2	594677	62.4	37.6	35224	52.5	47.5
2012	650554	60.4	39.6	608716	60.8	39.2	41838	55.4	44.6
2015	705991	60.0	40.0	674693	60.1	39.9	31298	58.1	41.9
2017	740648	60.8	39.2	709228	60.9	39.1	31420	58.8	41.2

Source: State Statistical Office of the Republic of Macedonia, Labour Force Survey 2000-2017
http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=3

The analysis of the gender wage gap is made for 2010 and 2014, since there is available data only for these two years and it focuses on the differences in the wages according the age groups and educational level. From the data in table 2 can be seen that the average annual gross wages of men are significantly higher compared to women.

The gender wage gap in 2010 is in the range from 7160 denars (age group 25-29) to 38720 denars (age group 60 and more), while in 2017 from 20547 (age group 60 and more) to 90373 denars (age group 45-49) (Figure 4). This implicates that the gender wage gap is increasing over time, more or less for all age groups.

Table 2: Annual average gross wage in denars, by gender, 2010 and 2014

	2010		2014	
	men	women	men	women
15-19	133499	122940	199514	148602
20-24	214426	202793	252032	226362
25-29	319222	312062	322718	300737
30-34	367048	336524	418771	374734
35-39	374603	340221	439785	383940
40-44	368250	335183	432306	378698
45-49	368845	357018	447946	357573
50-54	385954	367281	429858	377816
55-59	389339	380378	435409	391356
60 and more	472374	433654	475764	455217

Source: State Statistical Office of the Republic of Macedonia, http://makstat.stat.gov.mk

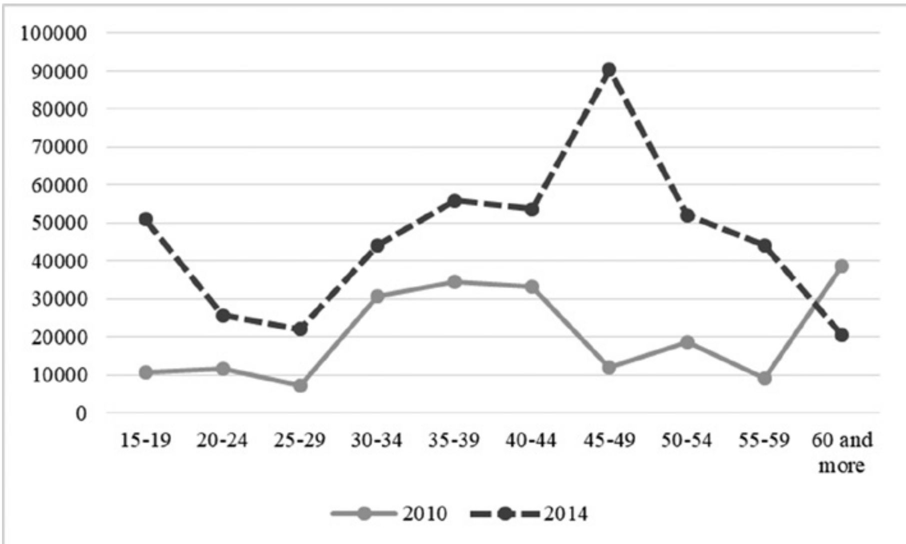


Figure 4: Gender annual gross wage gaps, by age groups, 2010 and 2014
Source: State Statistical Office of the Republic of Macedonia, http://makstat.stat.gov.mk

In respect to the gender wage gaps by educational attainment, the available data for 2010 and 2014 show that in both years, the differences in the wages are more emphasized at men and women with higher level of education (Figure 5). The gender wage gap for this level of education has doubled (from 69000 denars in 2010 to 135000 denars in 2014). Similarly, among all other educational levels, the wage gap is broadening over the years. Considering these changes, it can be noted that the returns to education are significantly lower for women.

This gender wage gap can stem from discrimination against women or can reflect different traits and preferences on the labour market. Also, it can be explained by various characteristics of men and women or by their different number of working hours. However, in order to determine the reasons for the wage gap, broader research should be done.

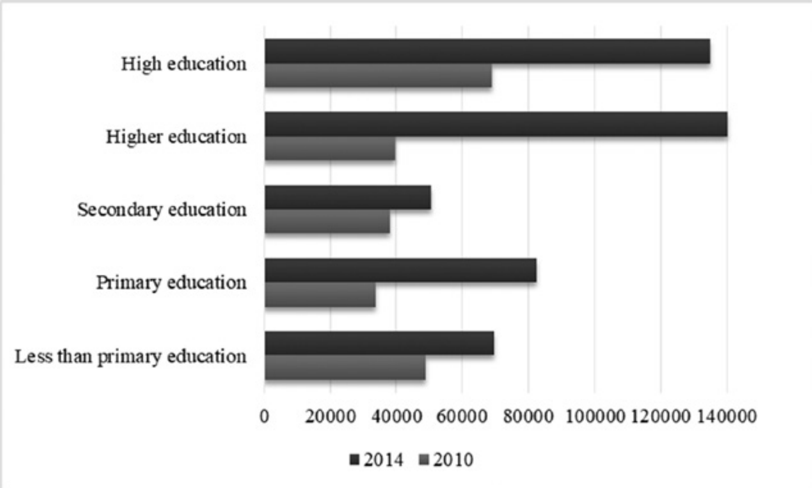


Figure 5: Gender annual gross wage gap, by educational attainment, 2010. and 2014.
Source: State Statistical Office of the Republic of Macedonia, http://makstat.stat.gov.mk

4. CONCLUSION

The analysis made in this paper confirms that there is a gender inequality on the Macedonian labour market, regarding their economic activity, employment and unemployment. The country has adopted many documents which are concerning the question of gender inequality. Some of the measures and activities provided in these documents has given results in reducing the differences between men and women in many aspects, including in their position on the labour market. However, it is necessary to continue taking appropriate steps to provide gender equality.

In order to overcome the gender inequality on the Macedonian labour market it is necessary to establish adequate institutional mechanism and to implement all documents, activities and measures which are concerning the inequality in the country. It will help to improve the women position in all aspects of their lives, as well as, on the labour market. This institutional mechanism should be aimed towards promoting, upgrading, and securing the equal participation of men and women, monitoring the implementation of regulations and initiating and adopting measures of affirmative action to upgrade the position of women.

Concrete activities should be taken to increase the employment and participation of women on the labour market, particularly of those with low level of education or inadequate skill, as well as of those who have lost the motivation to take part in continuing education and improvement. Also, the country must strengthen institutional protection of women's rights, develop atypical forms of employment contracts and initiate transition from fixed to flexible working hours. It should be accompanied with appropriate changes in the educational policy and informal forms of education. The media should have more responsible role in changing the stereotypes about women. It is also important to achieve equal distribution of responsibilities in family and working environment between men and women, and to affirm the principles and values of equality in every aspect of one person's life.

REFERENCES

[1] Arai M., Lechevalier S. (2005) Gender inequality within the segmentation of the Japanese labor market?, La Découverte, « Le Mouvement Social » 2005/1 No 210

[2] Blackden, M., Canagarajah S., Klasen S., Lawson D. (2006) Gender and growth in Sub-Saharan Africa, UNU-WIDER Research Paper No. 2006/37, Helsinki: United Nations University-World Institute for Development Economics Research

[3] Bošković O., Njegovan N. (2012) Gender inequality in the Serbian labour market, Economic Annals, Volume LVII, No. 192 / January – March 2012

[4] Domagała W. (2016) Gender inequality on the labour market in highly developed countries, Zeszyty Naukowe Polskiego Towarzystwa Ekonomicznego w Zielonej Górze

[5] Fuchs H. (2016) Gender Gaps in the Labor Market: Wage and Occupational Segregation, State of the Nation Report: Society, Economy and Policy

[6] Haralambos M., Holborn M. (2008) Social stratification from Haralambos, M and Holborn, M, Sociology: themes and perspectives, London, Collins.

[7] ILO. (2017) Economic impacts of reducing the gender gap-What Works, Research Brief No. 10, Geneva, International Labour Office

[8] ILO. (2010) Women in labour markets: Measuring progress and identifying challenges (Geneva)

[9] Klasen S., Wink C. (2003) Missing Women: Revisiting the Debate, Feminist Economics 9

[10] Kosyakova Y., Saar E., Dämmrich J. (2017) Institutional Change and Gender Inequalities at Labour Market Entry: A Comparison of Estonia, Russia, and East and West Germany, Studies of Transition States and Societies, Vol. 9, No. 2

[11] Lagerlof N. (2003) Gender equality and long run growth, Journal of Economic Growth 8

[12] McKinsey Global Institute. (2015) The Power of Parity: How Advancing Women's Equality can add $12 Trillion to Global Growth. New York: McKinsey & Company

[13] Ministry for labour and social policy of the Republic of Macedonia. (2013) Strategy for gender equality 2013-2020

[14] O'Neill J. E., O'Neill D. M. (2005) What do wage differentials tell us about labor market discrimination? NBER Working paper series, working Paper 11240 http://www.nber.org/papers/w11240

[15] State Statistical Office of the Republic of Macedonia, Labour Force Survey 2017, http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=3

[16] World Economic Forum (2018), Global Gender Gap Report 2018.

THE IMPACT OF APPLYING NEW TECHNOLOGIES TO THE DEVELOPMENT OF MODERN BANKING

Dijana Grahovac[1]
Senad Softić[2]

DOI: https://doi.org/10.31410/EMAN.2019.607

Abstract: *With the development of new technologies and sort of technological revolution, every business has experienced a transformation, in terms of the need to introduce new technologies, in order to achieve the highest level of competitiveness in the changed conditions of the present time, in the era of globalization. Banking is one of the areas that has experienced significant changes in the way of doing business for the last decade through the digitalization process. New business models with clients have been developed, as well as new products, which modern technology allows. The paper presents differences between the modern and traditional banking, which were created by the introduction of modern technologies in this field, as well as some negative effects of such trends, which are primarily reflected in the reduction of the number of employees in this field.*

Keywords: *modern technologies, digitalization, modern banking vs. traditional banking, employee reduction.*

1. INTRODUCTION

Innovation and technological development within the banking sector over the past decades has been based on achievements in the development of information and communication technologies[3]. During this period, new technologies have been developed and implemented thus contributing to the globalization of financial flows and the development of financial institutions and financial markets. The application of new technologies has enabled the development of new products and services and a change in the structure and size of demand in the market of banking products and services. At the same time, there is an increased pressure on banks to increase their own efficiency in order to increase profitability and survival in the market. Modern clients can very fast get important data at low cost and easily compare which bank institution offers them the best conditions (products and services)[4]. It's hard to imagine there was once a time when all banking was conducted at actual brick-and-mortar financial institutions. Even the simple task of checking your account balance used to require a trip to the bank. Today, you can check your account balance, send money, withdraw cash, transfer funds and more - right from your smartphone, computer or tablet[5].

1 Central Bank of Bosnia and Herzegovina, University of Business Studies Banja Luka, Bosnia and Herzegovina

2 Central Bank of Bosnia and Herzegovina, Faculty of Economics, Sarajevo, Bosnia and Herzegovina

3 Mols, N. P., The Internet and banks' strategic distribution channel decisions", *International Journal of Bank Marketing*, (17), 6, 1999, p 295-300.

4 Panian, Ž., *Internet i malo poduzetništvo*, Informator, Zagreb, 2000.

5 Sarreal, R., History of Online Banking: How Internet Banking Went Mainstream, https://www.gobankingrates.om/banking/banks/history-online-banking/

2. CONTEMPORARY VS. TRADITIONAL BANKING

Traditional banking is characterised by decentralisation and a wide network of branch offices offering products and services[6]. A wide network of branch offices secured them an increase in market share. Such performance enabled them to offer homogeneous products in a large number of places, but also created the need for a significant workforce, i.e. number of employees. At the same time, the „incoming" costs for new banking service providers were high, which kept them from growing competition and led to the creation of an oligopolistic market structure in banking. For clients, this meant that they had to adapt to the bank, and not vice versa, either when determining working hours, or when choosing products and services and prices (interest rates, fees, etc.).

Modern banking is characterised by a kind of centralisation that enables the application of new technologies.[7] The creation of more favorable conditions for the development of modern banking is also contributed by the fact that every day there is an increasing number of computer literate people, computerised jobs and the costs of providing new products and services are lower[8] (economy of scale), which enables a growing number of clients to use them.

The opportunities provided by new communication technologies have contributed to the development and offer of new products and services in the banking sector. The advantages provided for the banking sector by the application of new technologies can be listed as follows[9]:

- *Lowering costs*. Numerous studies have shown that the provision of services, such as, for example, cashless payments by some of the banking self-service methods, is cheaper than the one at the counter in a bank office[10].
- *Increase in market share*. Banks that introduced some of the banking self-services quickly attracted clients of banks that did not do it.
- *Mass communication*. The application of new technologies in self-service banking enables mass communication at very low cost (Internet).
- *Better communication with users*. New technologies enable the development of marketing activities through the web site in a cheaper and more efficient manner.
- *Innovation*. New technologies enable the introduction of new services and products of the banking sector. For example, to open a new account, the saver does not have to go to the bank during the working hours, but can do this personally using the Internet when it is most suitable.
- *Developing new activities*. Using new technologies, many banks also provided their clients with insurance and securities trading services, that were not offered by regular banks.

---

6 Reidenbach, R. E., Wiloson, T. C., McClung, G. W., Goeke, R. W. , The Value Driven Bank, New York: Irwin, Profesional Publishing, a Times Mirror Higher Education Group, Inc. Company, 1995.

7 Jayawardhena C., Foley, P., Changes in the banking sektor – the case of Internet banking in the UK, Internet Reserch: Electronic Networking Application and Policy, (10), 1, 2000, p 19-31.

8 According to the results of the 1996 survey, in the USA, the costs of distributing banking services to different distribution channels are as follows: in the office 1.07, with telebanking system 0.54, ATMs 0.27, credit card 0.10 and Internet banking system 0.01, all expressed in USD. These data were taken from the materials of the Banking Supervision Conference on „Electronic Banking Issues" from the lecture „Electronic Banking", Terese Rutledge, OCC, US Treasury, Warsaw, Poland, June 8, 2000. The economic and social policies of the state, although the profit of banks will grow.

9 Jayawardhena, C. et al. 2000.

10 The Economist, A Survey of Online Finance, May 2000.

On the other hand, the introduction of new technologies affects the personnel policy of banks. In modern banking conditions, employees with new knowledge and experience are required. More and more young people are employed, and on the other hand, middle-aged and older workers are to be laid off, since the competition, i.e. new technology, makes the banks to do so, by introducing a reduction in the number of required workers, especially those without new knowledge and skills[11].

In addition to the listed, it should be noted that an increasing number of new financial intermediaries are entering into jobs that were once traditionally banking jobs, thus strengthening competition within the banking sector[12].

3. CONTEMPORARY RELATIONS WITH CLIENTS AND PRODUCTS BASED ON DIGITALISATION

One of the new products and services that banks have introduced as a novelty enabled by new technologies is *home banking*, which enables users to perform cash transactions independently, via the computer network (new distribution channels), outside the time and space borders. The widest range of services are self-service banking ATMs, EFTPOS, ATM-Exchange offices, Telebanking, Home Banking, Internet Banking, SMS, Mpay and more[13].

Table 1: Advantages of self-service banking

Advantages	
Bank	Improved reputation in the market - a perception of a bank that is leading in the application of new technologies Reduction of transaction costs Better and faster responses to changes in the environment Greater market penetration - self-service banking can be accessed without space and time constraints Using the Internet to advertise / sell new financial products
A natural person client	Reduced costs of access to and use of banking services Increase of satisfaction for the time saving - transactions can be performed 24 hours a day, without physical arrival at the bank Speed of transactions Better fund management - each transaction is recorded in digital form and can be analysed before launching a new transaction
A legal entity client	Reduced costs of access to and use of banking services Fast and continuous access to information Increase of satisfaction for the time saving - transactions can be performed 24 hours a day, without physical arrival at the bank Speed of transactions Better fund management - each transaction is recorded in digital form and can be analysed before launching a new transaction

Source: Gurau, C., Online banking in transition economies: the implementation and development of online banking systems in Romania, The International Journal of Bank Marketing, (20), 6, 2002., p 285-296.

11 Wiesner Mijić, V., Otpuštanje na bankarski način "Operativa odlazi, menadžeri dolaze", Večernji list, 19.1.2005.

12 Tomašević Lišanin, M., *Bankarski marketing,* Informator, Zagreb, 1997.

13 Panian, Ž., Internet i malo poduzetništvo, Informator, Zagreb, 2000.

As Internet of Everything-enabled solutions create more personalized interactions, Digital Bank 4.0 will become a reality (see Figure 1). Through their omnichannel strategies (Digital Bank 3.0), banks have worked hard to make transactions more convenient and consistent. By developing IoE solutions that leverage video, mobility, and analytics, banks can make transactions so convenient and automated that they appear virtually invisible to the customer.

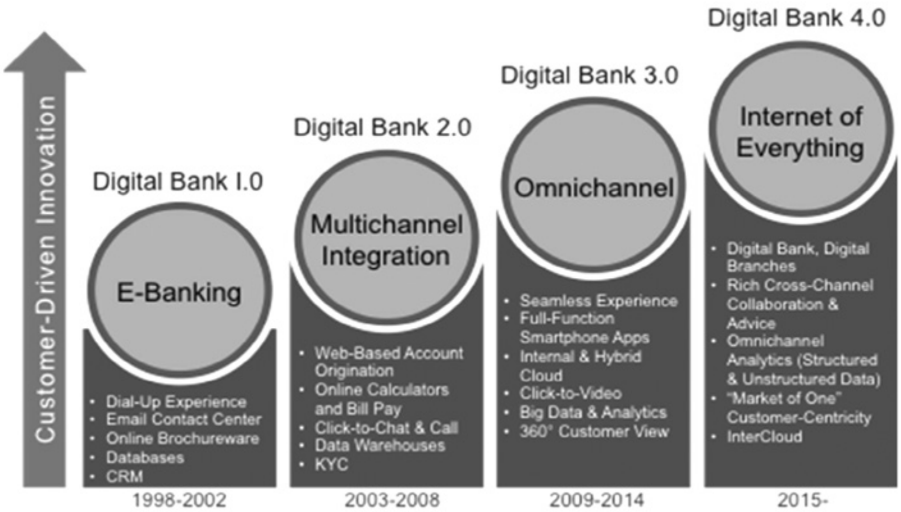


Figure 1: Interactive, personalized capabilities will enable "Digital Bank 4.0
Source: Cisco Consulting Services, 2014.

Chart 1 shows that online banking first became the most preferred banking method in 2009 with 25 per cent of customers naming it as their favorite. Previously, visiting a branch was the most popular method, followed by ATMs. The survey results show consumers have a clear preference for the speed and convenience that come with Internet and mobile banking.[14]

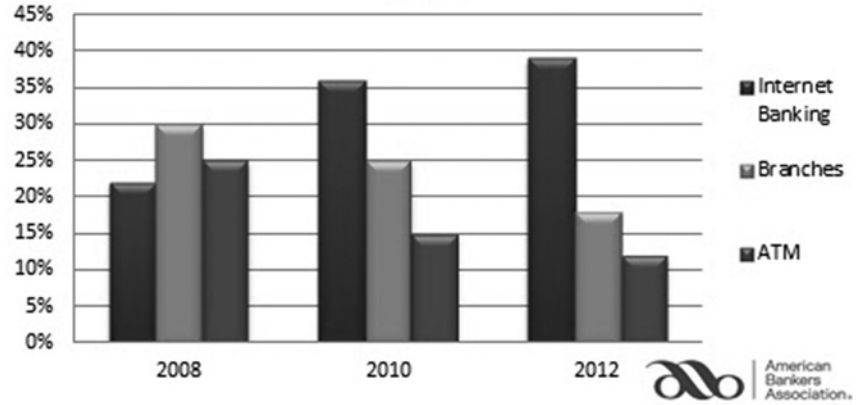


Chart 1: Preferred Banking method, all age groups
Source: Marous, J., As Online Banking Acceptance Grows Is Mobile Banking Reaching the Tipping Point With Millenials? 2012, https://bankinnovation.net/2012/10/as-online-banking-acceptance-grows-is-mobile-banking-reaching-the-tipping-point-with-millenials/

14 Marous, J., As Online Banking Acceptance Grows Is Mobile Banking Reaching the Tipping Point With Millenials? 2012, https://bankinnovation.net/2012/10/as-online-banking-acceptance-grows-is-mobile-banking-reaching-the-tipping-point-with-millenials/

4. PRACTICE

Digitisation in the banking sector brings banks a significant reduction in costs. From the figure 2 it can be seen that the reduced costs are not to be lost in the discussion of expanded offerings, enhanced functionality and the need for improved security, but that is the reality that growth in mobile banking has the potential to reduce costs of delivering services. As much as the growth in mobile banking use has resulted in incremental transactions (increased balance inquiries, more frequent money transfers, etc.), there is also an opportunity to reduce costs as well.

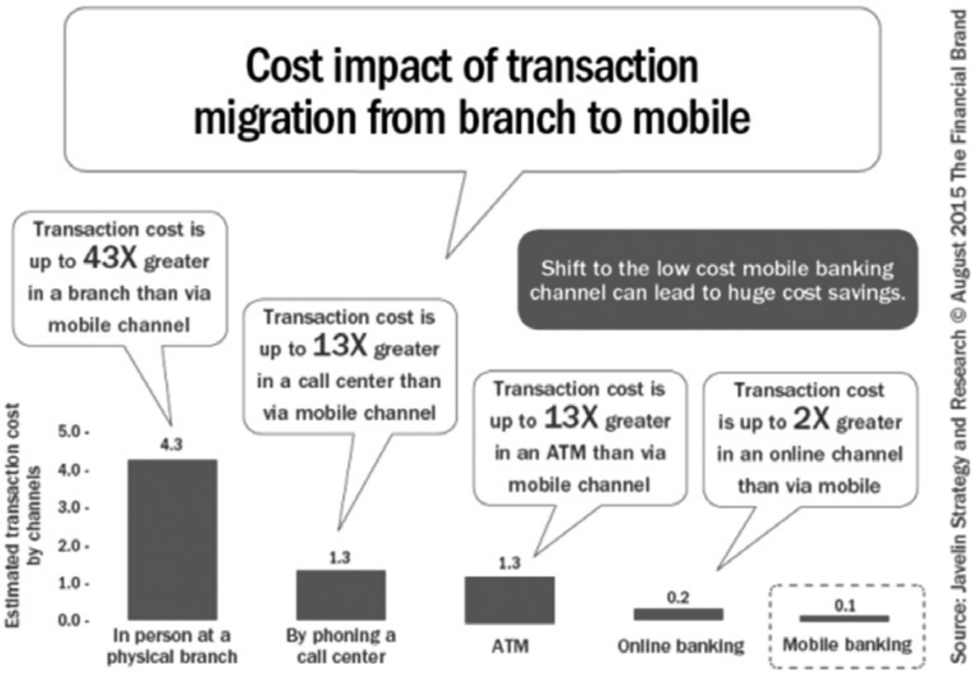


Figure 2: Cost of transaction migration

From Figure 3, there is a significantly higher number of visits to banking branches by 2012, when the trend is changing and the rapid increase in mobile banking participation is moving, in order to exceed visits to bank branches from 2015 and on.

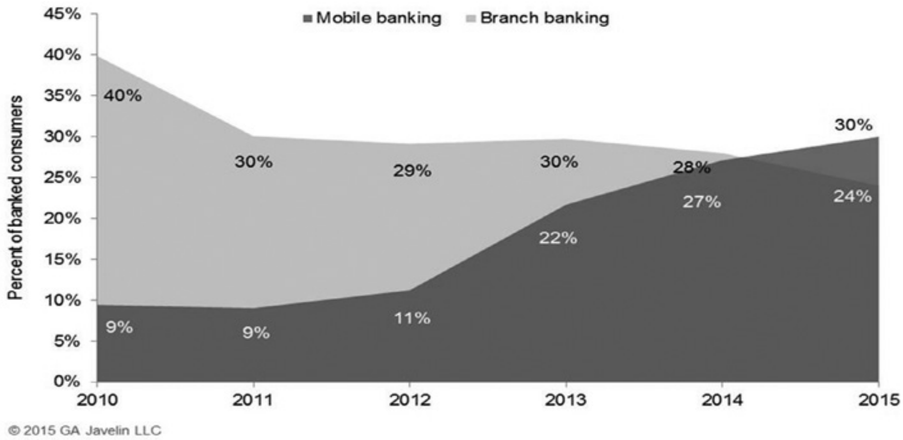
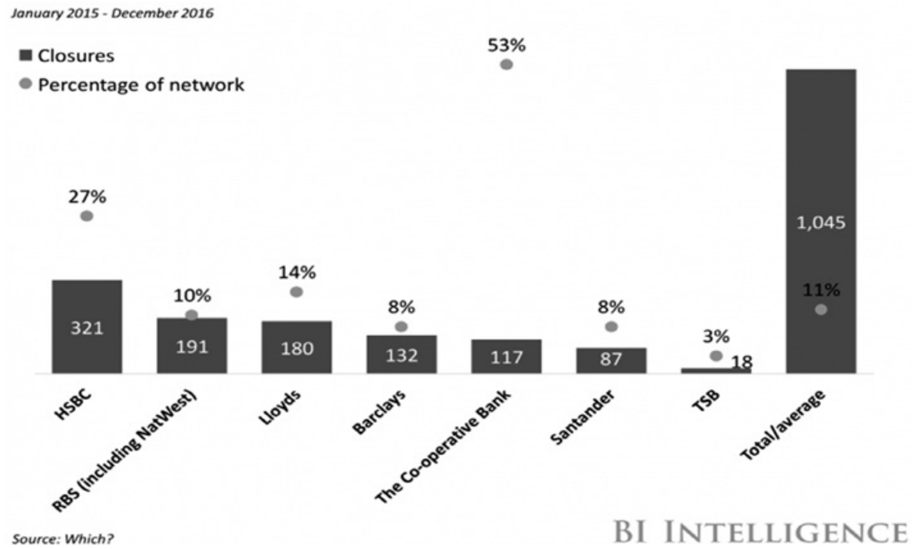


Figure 3: Mobile banking vs Branch Banking
Source: https://communityrising.kasasa.com/wp-content/uploads/sites/7/2018/05/mobile-banking-on-rise.jpg

As mentioned above, digitisation in the area of banking leads to a reduction in the number of branches and the number of employees. The graph 2 gives an overview of the number of closed branches in the Great Britain in the period 2015-2016 and a percentage in relation to the total number of branches. A total of 1045 branches or 11% were closed, and most were closed by HSBC.



Graph 2: Number of Bank Branches closures in Great Britain
Source: https://www.businessinsider.com/more-banks-are-closing-as-digital-banking-booms-2016-12

From 2007 to 2017, major insurance company Aviva reduced its workforce in Britain from 21000 to 15000, with Barclays bank cutting its British headcount from 103000 to 71000. HSBC bank went from 67000 to 43000, Lloyds banking from 140000 to 73000, Northern Rock bank from 6500 to 2500, RBS from 120000 to 65000 and Zurich from 10000 to 4000.[15]

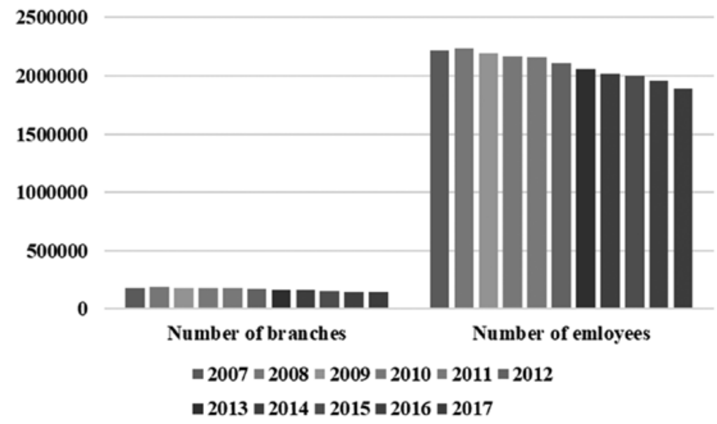
From 1995 until 2008, the growth of bank and thrift branches in the U.S. was unprecedented (and quite unwarranted based on branch transaction growth). In 2009, banks began to scale back on branch locations, decreasing by close to 5% annually through last year.[16]

The graph 3 shows the reduction in the number of branches and the number of employees in the banking sector of the euro zone, in the period 2007-2017. The number of branches is reduced by 22% and the number of employees by 15%.

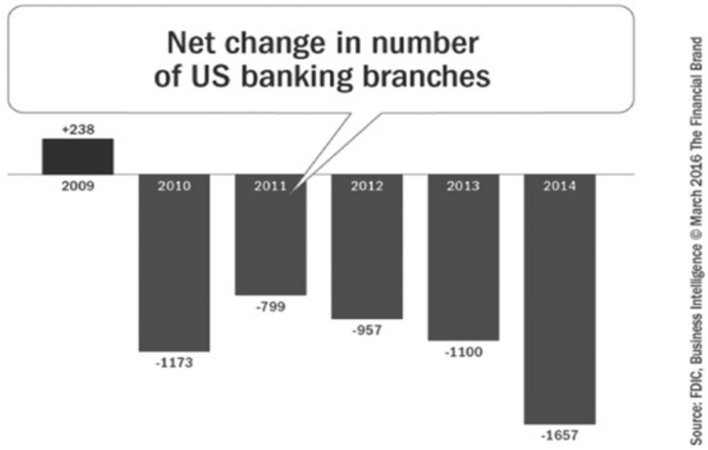
Generally, many financial services organisations respond to these changes, albeit very tentatively. Some banks have closed branch offices, while others have reduced branch departments. The result has been that the net change in US branches has remained negative for five years, and the rate of decline appears to be accelerating, according to FDIC and Business Intelligence statistics (Graph 4). In 2014, 1657 branches closed, marking the largest net decline in history, according to the FDIC. According to the Bureau of Labor Statistics (BLS), the number of tellers working at American banks will decline by as many as 40000 (7.7%) through 2024 (from 520000 today). While providing cost savings for banking organisations, these reductions are difficult for many banks and credit unions to make.

15 The Conversation, How finance workers are paying the price for the industry's profit, http://theconversation.com/how-finance-workers-are-paying-the-price-for-the-industrys-profit-83747

16 FDIC, Digital Banking Report, 2015. https://thefinancialbrand.com/wpcontent/uploads/2015/06/Total_number_of_us_bank_and_thrift_offices-565x408.png

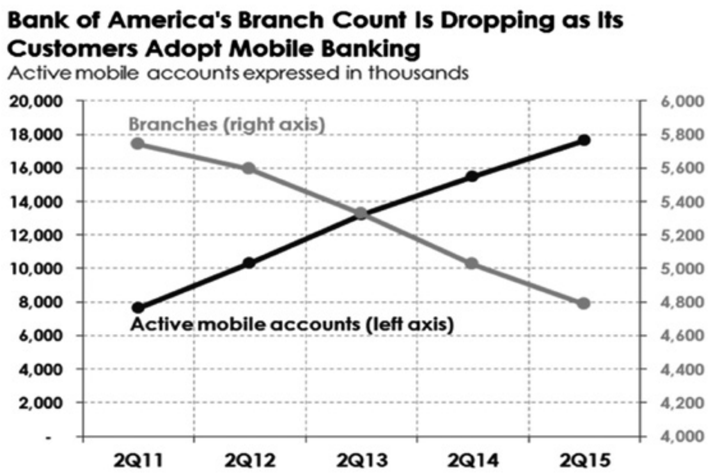


Graph 3: Number of branches and number of employees in banking sector of Euro area
Source: calculation of authors; data from Eurostat



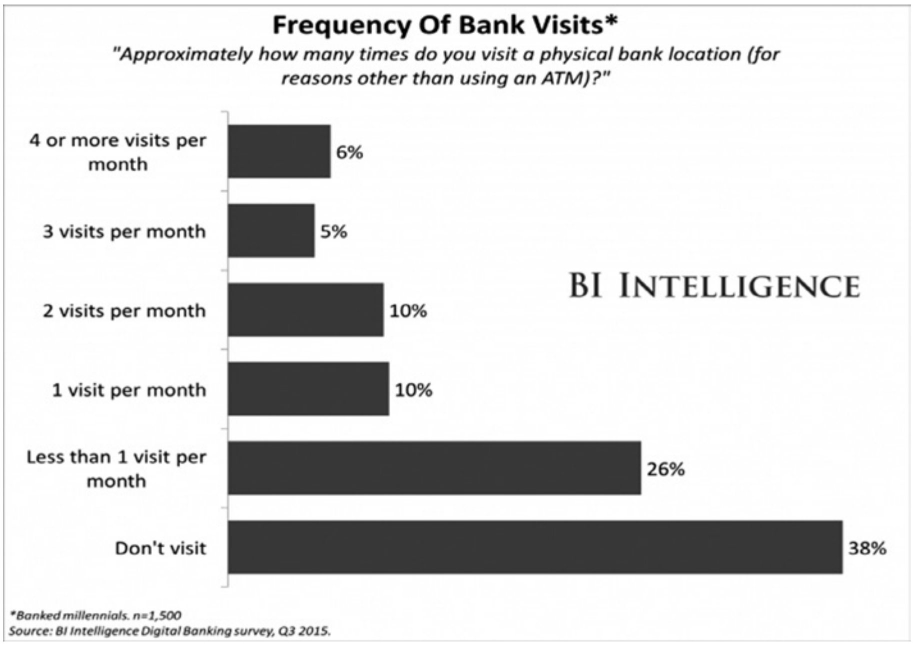
Graph 4: Net change in US banking branches

The graph 4 shows a significant drop in the number of branches in the period 2011-2015 in the Bank of America's, from 5800 to 4800, while Active Mobile accounts are growing from 8 million to 18 million, showing an increase of 125%.



Graph 4: Branches vs Active mobile accounts
Maxfield, J., Bank of America Is Closing Branches as Mobile App Users Grow, 2016, from http://www.fool.com/investing/general/2015/10/07/chart-bank-of-america-is-closing-branches-as-mobil.aspx

The graph 5 shows the frequency of Bank Visits of Citibank. The largest number of respondents said they did not visit the bank branches (38%), then - they were less than one visit per month (26%), while the remaining responses had significantly lower participation.



Graph 5: Citibank
Source: https://www.businessinsider.com/citibank-testing-beacon-technology-in-branches-2016-5

At first glance (figure 4), it might seem that in-lobby versus digital transactions are at near-parity in terms of preferred banking modes. After all, 39% of respondents said they'd rather interact with live bodies in a branch setting, which barely outnumbers the 36% who prefer banking via personal computer. But PCs are only part of the digital banking equation. Adding in the 14% who prefer banking via mobile and wearable devices (26% for Millennials) brings the number who prefer electronic banking in one form or another to a full 50%.

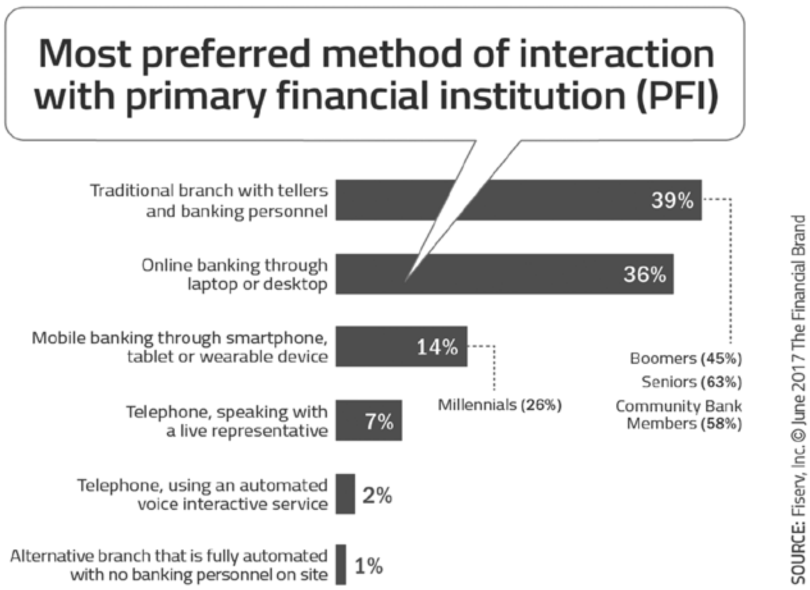


Figure 4: Most preferred method

From Figure 5 comes the conclusion that mobile banking experience is more important than branch experience. According to the structure until 2020, there will be a decline in the use of PCs, stable phones, as well as the number of branches, in the banking sector, and mobile banking will achieve a rapid growth from 86 million users in 2010 to 2341 billion users.

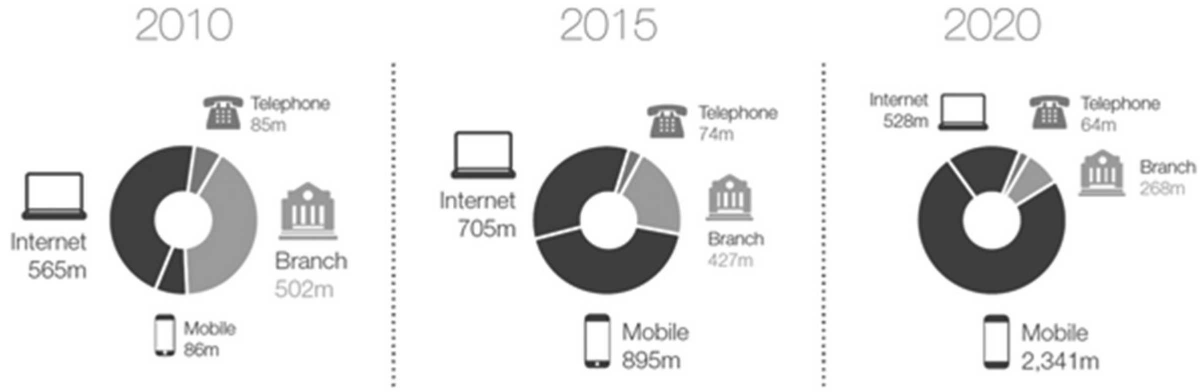
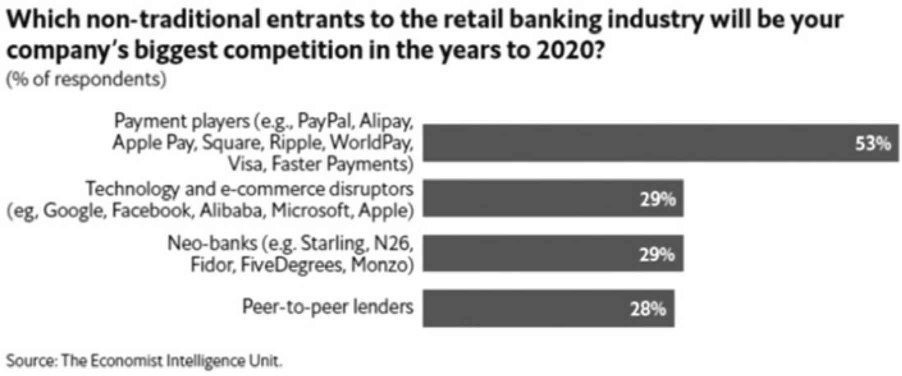


Figure 5: Mobile banking experience vs branch experience
Source: https://cuengage.com/is-your-digital-experience-one-you-are-proud of/bba_graphic_3340032a/

Surprisingly, survey respondents appear to be more concerned about losing business to new payment players, including the threat posed by Google, Apple, Facebook and Amazon (collectively known as GAFA), than they are about ensuring that new payment frameworks are secure. As Graph 6 illustrates, 22% of respondents believe that data protection legislation will have the biggest impact on retail banks in the years to 2020, while 13% expect it will be the Revised Payment Services Directive (PSD2) and/or equivalent open banking initiatives.



Graph 6: Non-traditional entrants to the Retail banking
Source: The Economist Intelligence Unit

5. CONCLUSION

In modern conditions, in the era of technological revolution, characterised by the growing representation of new technologies in all areas of business and human activity, digital banking is a necessary part of every bank as a way to overcome outdated approaches and mismanaged client relationships. Modern banking through modern technology creates new products and changes distribution channels, i.e. relationship with clients. Besides gradually reducing paper-based interactions, the primary focus has been on enhancing the product suite with value-added services and achieving an integrated channel experience. Introducing IT systems have helped banks

to reduce costs. New technology-saving companies are flooding the market with innovative offers for financial services, customers are becoming more confident in using the full range of e-commerce offerings. The traditional branch-based model is being replaced by an integrated channel approach that allows customers to conduct banking seamlessly across various channels, such as initiating a transaction in a branch and finalising it in a mobile application. Consumers approach their personal banking in many ways, using different channels for different types of transactions. On the other hand, this leads to a reduction in the number of branches and, consequently, a fall in the number of employees, which in the future will be a problem for the economic and social policies of the states, although the profit of banks will grow.

REFERENCES:

[1] FDIC, Digital Banking Report, 2015. https://thefinancialbrand.com/wpcontent/uploads/2015/06/Total_number_of_us_bank_and_thrift_offices-565x408.png
[2] Gurau, C., Online banking in transition economies: the implementation and development of online banking systems in Romania, The International Journal of Bank Marketing, (20), 6, 2002., p 285-296.
[3] https://bankinnovation.net/2012/10/as-online-banking-acceptance-grows-is-mobile-banking-reaching-the-tipping-point-with-millenials/
[4] Jayawardhena C., Foley, P., Changes in the banking sector – the case of Internet banking in the UK, Internet Research: Electronic Networking Application and Policy, (10), 1, 2000, p 19-31.
[5] Marous, J., As Online Banking Acceptance Grows Is Mobile Banking Reaching the Tipping Point With Millenials? 2012,
[6] Maxfield, J., Bank of America Is Closing Branches as Mobile App Users Grow, 2016, from http://www.fool.com/investing/general/2015/10/07/chart-bank-of-america-is-closing-branches-as-mobil.aspx
[7] Mols, N. P., The Internet and banks' strategic distribution channel decisions", *International Journal of Bank Marketing*, (17), 6, 1999, p 295-300.
[8] Panian, Ž., *Internet i malo poduzetništvo*, Informator, Zagreb, 2000.
[9] Reidenbach, R. E., Wiloson, T. C., McClung, G. W., Goeke, R. W., The Value Driven Bank, New York: Irwin, Professional Publishing, a Times Mirror Higher Education Group, Inc. Company, 1995.
[10] Sarreal, R., History of Online Banking: How Internet Banking Went Mainstream, https://www.gobankingrates.om/banking/banks/history-online-banking/
[11] The Conversation, How finance workers are paying the price for the industry's profit, http://theconversation.com/how-finance-workers-are-paying-the-price-for-the-industrys-profit-83747
[12] The Economist, A Survey of Online Finance, May 2000.
[13] Tomašević Lišanin, M., Bankarski marketing, Informator, Zagreb, 1997.
[14] Wiesner Mijić, V., Otpuštanje na bankarski način "Operativa odlazi, menadžeri dolaze", Večernji list, 19.1.2005.

VOLATILITY OF EUA PRICES AND IT'S CONNECTION WITH THE PRICE OF FOSSIL FUELS AND ELECTRICITY*

Domagoj Vulin[1]
Maja Arnaut[2]
Lucija Jukić[3]
Daria Karasalihović Sedlar[4]

DOI: https://doi.org/10.31410/EMAN.2019.617

Abstract: *Prices of electricity, oil, and gas are analyzed by terms of statistical distribution of price change and volatility of price change. The best time window was determined to determine signal of price change in such manner that the change of one parameter (i.e. price) precedes the change of the other with the expected time delay. Student's distribution has shown good matching with price changes. EUA price is shows great variations, and strongly depends on the period. Back-loading of EUA prices issued by European Commission caused extreme drift in price making prediction of feasibility of long-term investments in Carbon Capture (Utilization) And Storage extremely unreliable.*

Keywords: *energy price volatility, EU ETS, EUA prices, CCS, long-term investments, oil and gas industry.*

1. INTRODUCTION

Energy industry has a great impact on other industries. In the case of hydrocarbon production, namely natural gas and oil, the effect of price shocks is widely examined (Kim and Loungani 1992, Finn 2006), where demand for goods and services that are affected by the price of energy, and which are energy-intensive is usually reduced when energy (primarily oil) price shock occurs (Kilian 2009). The fact that energy price is heavily affected by structural breaks in the relationship between oil price and other economic parameters (Kilian and Vigfusson 2011, Ewing and Malik 2005) makes the assessments of risk in the case of any technology that is related to oil and gas industry. In this work, the hydrocarbon prices and electricity price were examined to detect the fluctuations on energy market price that might discourage or motivate the investments in CO_2 capture, transport and sequestration (storage, CCS). The main driver for CCS technologies in EU is European Emissions Trading System (EU ETS), and the important players in technology implementation must be Oil and Gas companies, due to its long-lasting experience in oil and gas reservoir research, production and management of such systems. In other words - technology exists, and is already implemented in some parts of the world (Godec et al. 2011, Wright et al. 2009, Leung et al. 2014)using it to produce additional oil. This option, called CO2enhanced oil recovery (CO2-EOR, but in EU it still seems to be too uncertain to invest into CO_2 storage.

* This research was conducted as part of the ESCOM project. Project is funded by the Environmental Protection and Energy Efficiency Fund with the support of the Croatian Science Foundation (HRZZ – Hrvatska zaklada za znanost; PKP-2016-06-6917).

[1] Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
[2] Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
[3] Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
[4] Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia

Eller et al. (2011) indicated that Oil and Gas companies often experience pressures that are affecting the investment strategies, like non-commercial government objectives (pronounced in the case of national oil companies). Their conclusion is that, if political objectives will overtake the control over the oil and gas industry, the production will decrease directly affecting the process.

Hartley and Medlock (2013) analyzed the revenue efficiency of national and partially privatized oil companies and shareholder owned oil companies. They emphasized that national companies, i.e. national owned companies are featured with overemployment and reduced productivity. However, they also found unidentified inefficiency sources. They found that the efficiency of merging firms did not raise, as it is expected from theory. They confirmed that is to expect that the oil and gas developments will be governed by political objectives in mind, because the national oil companies control more oil and gas resources.

2. IMPLEMENTATION OF CCS TECHNOLOGIES AND THE PROBLEM STATEMENT

The intentions to control CO_2 emissions in EU was followed by introduction of the European Union Emissions Trading System (EU ETS). It is the largest emissions allowance market. EU Allowances (EUA) can be traded and form the uniform CO_2 price in EU.

The EU ETS can include about 50 percent of CO_2 emissions from the power sector and other energy-intensive industries, and should have the following features:

- EUAs are allocated for free,
- EUAs can be auctioned,
- Emitters are encouraged to lower the reduction costs below the EUA price,
- Heavy GHG emitters can buy EUAs and postpone the CO_2 reduction,
- Buyers and sellers at EU ETS should be allowed to trade directly (without brokers) through exchanges.

Three periods of EU ETS were planned:

- First phase (2005-2007). This phase ended with price collapse because of over-allocation, but it is considered as testing phase.
- Second phase. This phase coincides with the Kyoto Protocol commitment period of 2008-2012. National allocation plans overcome over-allocation issues but determine allocation cap on the EU level. The market volume traded increased several times and market liquidity increased.
- Third phase is ongoing and active from 2013-2020.

Tendency to relate the emission costs with number of allowances has not resulted with significant success, and energy price or widely used economic indicators are not effective for prediction of EUA price movements. Structural break in allowance price was detected in first periods (Hintermann 2010).

The motivation for the analysis in this work came out from several facts:

- The investments in oil and gas industry, i.e. exploration and production of oil and gas are intensive;
- The investment return period is measured in years, and often in in more than ten years;

- Production lifetime of an oil field (and often of a natural gas field) is usually several decades. In other words, oil fields produce long time after research-team (along with all other expert and management teams) is retired. This is especially important because the credits for a profitable project are not given to specialists who developed them;
- Carbon price is not at levels that encourage CCS investments. Moreover, the trust in the trading system is yet to be built, because it has been discredited with incident such as registry phishing and value-added tax frauds (Dhamija et al. 2018);
- Oil and gas companies are not prone to subsidies, because they often constitute short-term benefits;
- CO_2 underground storage by itself requires technologies known to oil and gas industry. However, the payback period is very uncertain because of several abovementioned facts.

As the long-term price predictions are impossible, in this work only the comparison of simple statistical parameters is given.

3. THE COMPARISON OF EU ETS PRICES AND COAL, OIL AND NATURAL GAS PRICES

The summary of EUA prices in third EU ETS period does not indicate any direct correlation with coal, oil or natural gas prices (Figure 1). Electricity prices heavily depend on demand, which is very unpredictable. They show slight positive drift in last six years. Some similarities in overall drift can be observed qualitatively for EUA prices, but only until 2018. Next step of the analysis was to determine monthly price differences (variations of average monthly prices, Figure 2). Because of nature of each parameter, values are normalized (Figure 3):

$$price_{normalized} = (price - price_{min}) / (price_{max} - price_{min}) \quad (1)$$

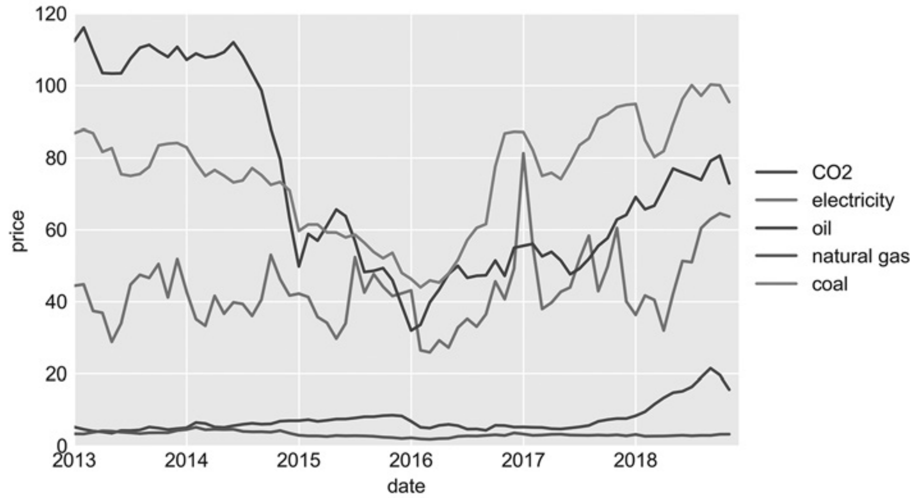


Figure 1. Energy and EUA prices
(CO2 - eur/t, Electricity - eur/MWh, oil - \$/bbl, Gas - \$/btu, Coal \$/t)

Normalized price changes are taking into account the maximum and minimum price within the observed period (year 2013 to Nov 2018). If the period is representative for all observed parameters, it will give a proper insight into *relative magnitude* of price change (Figure 4). At

this moment, the change of natural gas price can be connected with the change of EUA price, as the standard deviation *relative magnitude* of EUA price changes (EUA RMPC, that is standard deviation of normalized prices changes) decreased (or increased) every year when natural gas RMPC decreased (or increased).

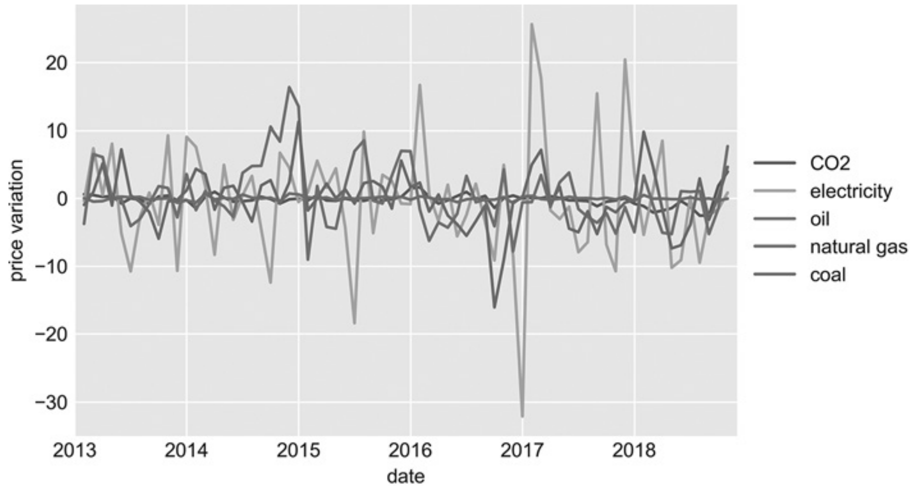


Figure 2. Relative change of prices

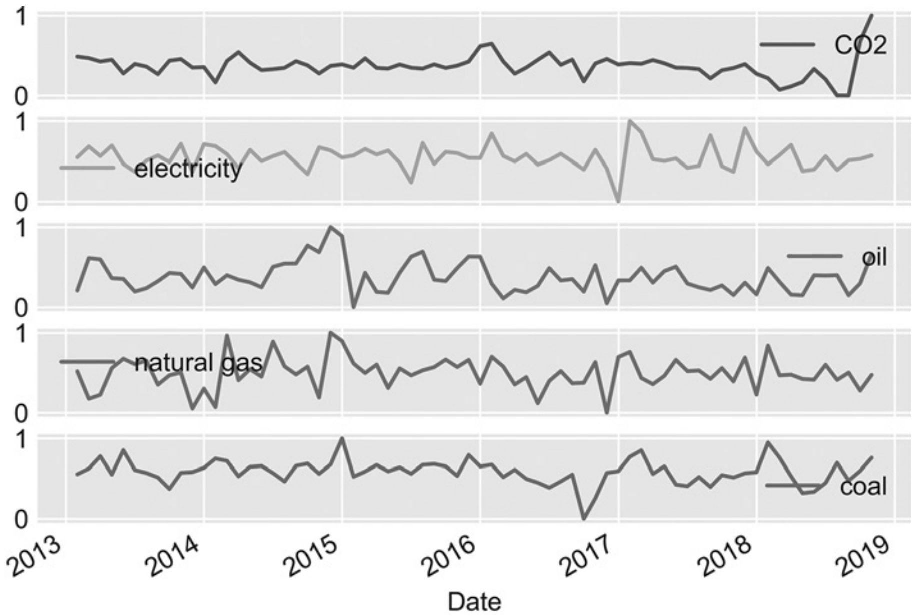


Figure 3. Relative change of normalized prices

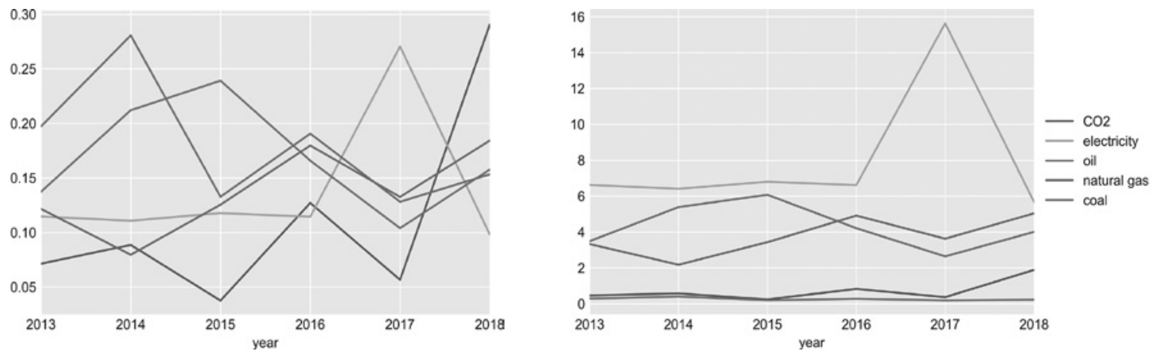


Figure 4. Standard deviation of normalized prices changes (left)
and of absolute prices changes (right).

Next step of the analysis was focused on statistical distribution testing of monthly price changes. As the process was conducted automatically (by coding the function for distribution testing in Python programming language, and with *scipy.stats* library, www. SciPy.org 2019), large number of distributions was tested. Distributions are evaluated by finding the best goodness of fit by Kolmogorov-Smirnov (K-S) test, i.e. the test statistic (D, supremum between CDF's of two samples) and p-values (the probability that the D statistic value will be larger than observed). Because every distribution testing method has its disadvantages, distributions are also checked visually by plotting (Figure 5). Top 3 distributions for every parameter are listed in Table 1.

Table 1. Summary of best fitted distributions

	distribution	D	p
CO_2			
	johnsonsu	0.071523	0.866390
	t	0.074513	0.831842
	laplace	0.082111	0.737905
Electric power			
	johnsonsu	0.040681	0.999825
	t	0.049481	0.995472
	fisk	0.051749	0.991975
Oil			
	johnsonsu	0.055165	0.983415
	exponweib	0.056375	0.979249
	johnsonsb	0.058606	0.969794
natural gas			
	hypsecant	0.041061	0.999789
	johnsonsu	0.042821	0.999532
	t	0.045671	0.998596
coal			
	johnsonsu	0.056213	0.979844
	t	0.058458	0.970495
	hypsecant	0.065114	0.927959

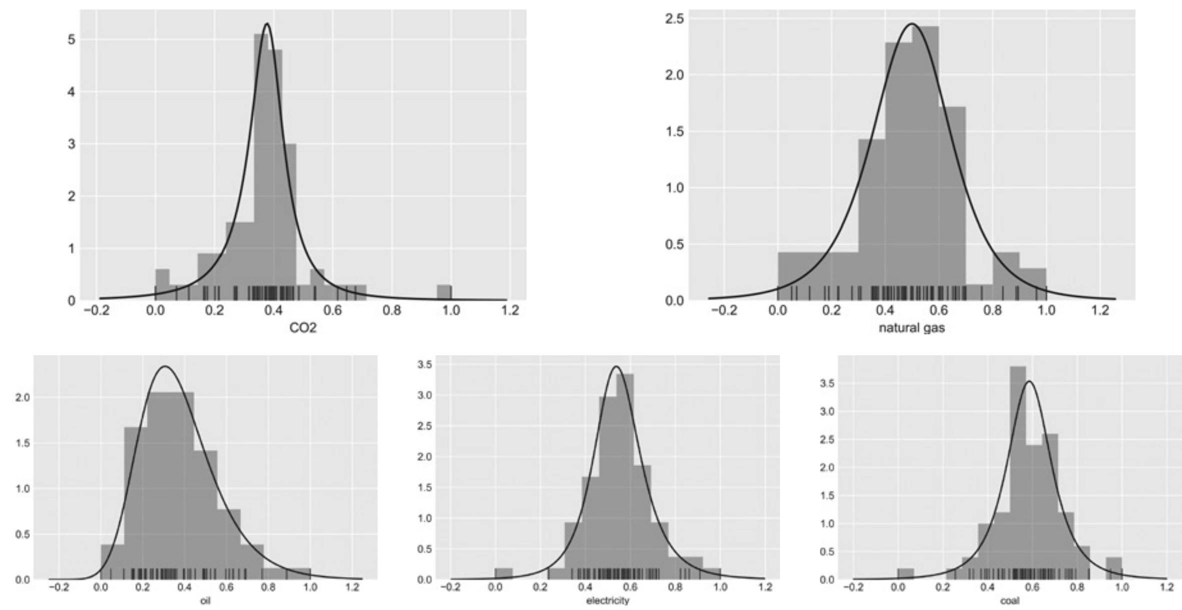


Figure 5. Normalized price changes and their fit to Johnson SU statistical distribution (first row: left - CO_2, right - natural gas; second row: oil, electricity and coal from left to right, respectively)

Johnson SU distribution (Johnson 1949) shows in most cases the best fit. However, it must be mentioned that the distributions might be different if different time window (e.g. a weekly or quarterly) for the analysis of price changes was used. Extensive analyses were performed for purposes of ESCOM project; however, the distribution testing only gives insight to more detailed features of price changes and volatility in general, but cannot be used as a tool for predictions of risk of long-term investments such as CCS.

4. CONCLUSIONS

Policies should motivate CCS through the early deployment phase which must include the integration of new technologies and mechanisms for all segments of CCS. Oil and gas companies can immediately implement many of required technologies, but the changes of business policy in oil and gas companies are required.

Technological innovation in efficiency of carbon capture and CO_2 utilization technologies must be encouraged. For oil and gas companies - this leads to enhanced oil recovery methods (EOR) that are proven as successful both for oil recovery and CO_2 storage (injected CO_2 retention). Such technologies need improved quality of CO_2 transport system, and research network, which might include merging of departments between different companies and cooperation with research institutions. However, the analyses of such merging already showed decrease of efficiency, and CCS technologies will be possible only with increased efficiency.

In this work, based on statistical analysis following conclusions are drawn:

- CO_2 price and natural gas price have smallest standard deviations (which can be interpreted as volatility) of prices, i.e. price changes. However, CO_2 price jump in 2018, makes estimates of price changes unreliable,
- CO_2 price changes follow the natural gas changes which is notable from standard deviation of normalized prices changes,
- Electric power and natural gas monthly price changes show the best goodness of fit to Johnson SU distribution. This confirms that observation of natural gas price changes might be good indicator for assessments of EUA prices.

Generally, more data on EUA prices is needed, which means that the EU ETS market is immature and long-term investments in CCS, without big subsidies from governments, will not be attractive soon.

By summarizing, stability of natural gas prices (and natural gas seems to be the most important energy source for energy transition in EU) might accelerate the stabilization of EUA prices.

5. ACKNOWLEDGMENT

This research was conducted as part of the ESCOM project. Project is funded by the Environmental Protection and Energy Efficiency Fund with the support of the Croatian Science Foundation (HRZZ – Hrvatska zaklada za znanost; PKP-2016-06-6917).

REFERENCES

[1] Dhamija, A.K., Yadav, S.S., and Jain, P. (2018) 'Volatility Spillover of Energy Markets into EUA Markets under EU ETS: A Multi-Phase Study'. *Environmental Economics and Policy Studies*

[2] Eller, S.L., Hartley, P.R., and Medlock, K.B. (2011) 'Empirical Evidence on the Operational Efficiency of National Oil Companies'. *Empirical Economics*

[3] Ewing, B.T. and Malik, F. (2005) 'Re-Examining the Asymmetric Predictability of Conditional Variances: The Role of Sudden Changes in Variance'. *Journal of Banking and Finance*

[4] Finn, M.G. (2006) 'Perfect Competition and the Effects of Energy Price Increases on Economic Activity'. *Journal of Money, Credit and Banking*

[5] Godec, M., Kuuskraa, V., Van Leeuwen, T., Melzer, L.S., and Wildgust, N. (2011) 'CO2storage in Depleted Oil Fields: The Worldwide Potential for Carbon Dioxide Enhanced Oil Recovery'. in *Energy Procedia*. held 2011.

[6] Hartley, P.R. and Medlock, K.B. (2013) 'Changes in the Operational Efficiency of National Oil Companies'. *Energy Journal*

[7] Hintermann, B. (2010) 'Allowance Price Drivers in the First Phase of the EU ETS'. *Journal of Environmental Economics and Management*

[8] JOHNSON, N.L. (1949) 'Bivariate Distributions Based on Simple Translation Systems.' *Biometrika*

[9] Kilian, L. (2009) 'Not All Oil Price Shocks Are Alike: Disentangling Demand and Supply Shocks in the Crude Oil Market'. *American Economic Review*

[10] Kilian, L. and Vigfusson, R.J. (2011) 'Nonlinearities in the Oil Price-Output Relationship'. *Macroeconomic Dynamics*

[11] Kim, I.M. and Loungani, P. (1992) 'The Role of Energy in Real Business Cycle Models'. *Journal of Monetary Economics*

[12] Leung, D.Y.C., Caramanna, G., and Maroto-Valer, M.M. (2014) 'An Overview of Current Status of Carbon Dioxide Capture and Storage Technologies'. in *Renewable and Sustainable Energy Reviews*.

[13] Wright, I.W., Ringrose, P.S., Mathieson, A.S., and Eiken, O. (2009) *An Overview of Active Large-Scale CO2 Storage Projects*. held 2009.

DECENTRALIZATION OF THE WATER INDUSTRY IN THE CONTEXT OF ECONOMIES IN TRANSITION (ON THE EXAMPLE OF THE CZECH REPUBLIC BETWEEN 1992-1998)

Michal Fanta[1]
Radek Soběhart[2]
Jiřina Jílková[3]

DOI: https://doi.org/10.31410/EMAN.2019.625

Abstract: *This research focuses on network industries, specifically on water industry in the context of the Czech economy in transition between 1992-1998, primarily on describing the state of the water industry towards the end of the 1980s, on key legislative changes between 1991-92 that touched upon key administrative questions and the future ownership of the water network and water market – the Czech Republic chose a specific way to approach the transformation of the water industry by gratuitously transferring the ownership of the previously state-owned infrastructural properties to individual cities and municipalities. Next part of paper outlines the effectiveness of such (de)regulation process based on development of key industry indicators. Very slow development of industry indicators and lack of state financial support for capital investment in water infrastructure led to the subsequent privatization of water companies, which can be considered as a completely rational outcome of unsustainable market developments.*

Keywords: *deregulation, transition, transformation, privatization, water industry, public service.*

1. INTRODUCTION

The water industry is one of the pillars of the so-called network branches and is one of the key segments of the economy. The distribution of drinking water and conducting away of sewage water via public piping is nowadays considered to be a matter-of-course service without which we could hardly imagine our day-to-day lives to exist. That is why providing this crucial infrastructure is one of the fundamental duties of the public sector. However, in the context of this infrastructure, many market failures and high costs for the government when rectifying potential damages are often pointed out (Klien, 2015; Cave, Wright, 2010). There are different opinions as well, based on the fact that even the water industry is a classic area of the so-called mixed economy, in which private and public interests clash (Mejstřík, 2004). Experiences from other network branches, such as railway transportation or energy industry, also show that the participation of the private sector provides many benefits in the form of higher efficiency and level of provided services (Klien, Salvetti, 2018; Cavalho, Marques, Berg, 2012; Amos, 2004). The Czech Republic at the end of the 1990s took this route since it allowed the private sector to enter the water industry and the transfer of water infrastructure into private hands (Hlaváč, 2006). This was however preceded by a rather complicated transformation process in the 1990s which directed the entire branch towards its current highly fragmented form. The analysis of this fragmentation process is the core of this text.

1 Jan Evengelista Purkyně University, Pasteurova 1, Ústí nad Labem, ZIP code: 400 96, Czech Republic
2 Jan Evengelista Purkyně University, Pasteurova 1, Ústí nad Labem, ZIP code: 400 96, Czech Republic
3 Jan Evengelista Purkyně University, Pasteurova 1, Ústí nad Labem, ZIP code: 400 96, Czech Republic

The transformation and privatization of the water industry is also the focus of a number of foreign studies whose conclusions vary significantly. In several cases, the participation of the private sector in the water industry is seen as only “picking out” the rentable elements of the market which in the end leads only to a price increase which does not correspond with the appropriate level of effectiveness and productivity (Memon & Butler, 2003). Partial privatization and participation of the private sector in developing countries can on the other hand lead to the branch receiving large capital investments that later raise the overall level of services and enable significant revitalization of infrastructure and improve the purity of water itself (Pangare a kol., 2004). In most cases, the participation of the private sector is only partial – the ownership of the infrastructure remains in the hands of the public sector and the management of it is provided by the private partner via temporary lease. One of the few exceptions is the privatization of the water industry in the United Kingdom where the water infrastructure was sold to private operators. The entire branch is thereby solely private, of course under strict observation by the regulator. In this case the opinions differ about the development of effectiveness and productivity that the privatization brought. One side of the opinion spectrum states that the privatization significantly strengthened the technological facilities of the water industry but did not deliver the promised growth of productivity, thereby causing significant losses of overall effectiveness (Saal, Parker & Weyman-Jones, 2007). Another study however shows that the UK water industry experiences (thanks to the privatization) very quick technological development which leads to the constant decrease in operational costs (Bottasso & Conti, 2003).

The Czech Republic, similarly to e.g. Poland (Lis, 2015) or Slovakia (Havlicek, 2005), and Hungary (Péter, 2007; World Bank, 2015) chose a specific route for the transformation of the water industry. At first, it was not a typical privatization process – transfer of ownership of enterprises and their assets directly to private hands – but rather at first the so-called deetatization – one of the steps in the decentralization process connected to political and economic changes at the turn of the 1980s and 1990s and the transition from centrally planned communist economy to a certain version of market economy. It meant that the water infrastructure and its operational assets were at first transferred into the property of cities and municipalities.

2. MATERIALS AND METHODS

Information about the transformation process were gathered from publicly accessible articles, studies, and legislative documents from the Office of the Government of the Czech Republic. For an objective evaluation of the development of the water market, tools of comparative data analysis were used that compare the development of key indicators of the water industry between 1992-1998 when the process of transformation was finished. The data for the comparative analysis was gathered from the publicly accessible database of the Czech Statistical Office, statistical yearly reports of the Ministry of Agriculture of the Czech Republic, and yearly reports of the branches of water systems and sewage systems published by the Ministry of Agriculture of the Czech Republic.

3. CZECH WATER INDUSTRY IN TRANSITION

Not only in the Czech Republic but also in almost all countries of the former Easter Block, the water industry was highly underfunded before 1990. The pressure for a quick and extensive industrialization during the communist regime lead to corresponding building of water infrastructure, it was however not accompanied by securing enough conducting away or waste-water treatments which lead to a significant deterioration of the quality of natural water resources.

The ownership of the infrastructure and the providing of water services was in the hands of the government that primarily focused on price availability of services for the entire society and not on economic effectiveness (World Bank, 2015).

The transformation of Czech water industry started in 1992. The entire preparation process for this extensive transformation was initiated primarily by the Resolution of the Government of the Czech Republic NO 222 adopted on 3 July 1991, on the principles of the reforms and transformation processes of the systems of providing drinking water, sewage systems, and waste-water treatment. This resolution included a summary of the status quo, the agreement to the reform proposition, and individual gradual steps of the reform and of the transformation process, for which the former minister of agriculture was responsible for. In the same year, the Act No 92/1991 Coll. was established, on the transfer of property of the state to different persons which defined the course and form of privatization projects, thereby preparing all necessary institutional documents for the extensive transformation and restructuring not only of the water industry. The so-called water act (Act No 138/1973), adopted in 1975, defined the fundamental areas of water management, such as water protection, underground water, and supplying the inhabitants, watercourses and their management, water buildings, and other important segments, remained valid until 2002.

Besides the mentioned acts, the Ministry of Agriculture also worked on a study called "Zásady pro privatizaci státních podniků oboru veřejných vodovodů a kanalizací" (Rules for Privatizing State-Owned Enterprises in the Area of Public Waterworks and Sewage Plants). The objective of the study was i.e. to introduce foreign experiences to the issue and their recommendations for a healthy development of the branch, as well as appropriate setting of regular barriers for the functioning of the market environment. The study also stressed the advantages of bigger organizational structures that function more effectively and provide the users with high-quality services with appropriate tempo of price growth (Transparency International, 2009).

The actual process of transformation of the branch started in 1993, initiated by a gratuitous transfer of state-owned property of the water industry's infrastructure and operational property to the self-government of cities and municipalities. In principle, every city or municipality became a sole owner of its water industry infrastructure and its operational property. All responsibility from these remained with the management of the municipalities. The second important aspect of the transformational process was the inception of the so-called water industrial business enterprises, whose goal was to connect the infrastructural property of municipalities and provide their management. The management of cities and municipalities had two options how to manage their water industry property:

- to keep the property ownership and supply of drinking water and sewage-water drainage of their citizens with their own powers;
- or to transfer the property to a water industrial business enterprise that would provide the running, revitalization, and the connected services.

The privatization projects were at the same time constructed so that they secured the decisive influence of the cities and municipalities over the newly established water industry enterprise via having the majority of the shares in them. The beneficial interest of these enterprises (that the municipalities also received for free) was established by the value of their infrastructural property. Naturally, larger cities with a dense infrastructural network had a larger property share in the regional water industry enterprises than smaller municipalities with only several connections. Already at this stage, between 1992-1993, the state calculated the option of creating two different models of management:

- *Mixes model* – water industry enterprise owns and at the same manages the water infrastructure based on agreed upon norms and proper administration of the enterprise;
- *Separated model* – water industry enterprise only owns the water infrastructure and the management and connected services are provided by other natural or legal persons based on a contract (separation of ownership and management). Municipalities do not lose the oversight over the water and sewage prices.

Until 1993, there existed overall 11 state-owned water industry enterprises (9 regional and 2 in Prague that provided the management, renewal, and development of water industry infrastructure). The implementation of privatization projects and the transformation lead to the fragmentation of these large holes, in 1994 there were around 40 regional water industry enterprises and more than 1,200 additional small-scale operators.

To call the process until this point as a privatization process is completely false. It only came to the so-called deetatization – a transfer of the previously state-owned property (water industry and sewage infrastructure and connected operational property) to cities and municipalities. The original 11 water industry enterprises were by privatization projects fragmented into about 40 regional water industry enterprises whose new majority shareholders were the self-governments of cities and municipalities. The state also within this process created certain safeguards that were supposed to even prevent a complete privatization of this industry as a monopole. Such a safeguard was e.g. an option of using the state administration's influence in water industry enterprises in the form of a "golden share". In such a case, the state could block any fundamental planned changes in the water industry enterprises for which a certain number of shares would be needed at the general meeting. The state also as a part of the privatization projects worked in limiting rules regarding the transfer and selling of shares. The intent of this was to keep the planned owner structure and prevent the selling of shares to the hands of private enterprises. Privatization (selling of share into private hands) would be a serious breach of not only the rules of the water industry enterprises but also of the rules of the Commercial Code. The established water industry enterprises provided the supply of drinking water and drainage of waste-water for 90 % of the inhabitants of the Czech Republic. The remaining 10 % of the market was provided by small operators created by cities and municipalities that decided to not invest their gained infrastructure and operational property into the ownership of regional water industry enterprises in which the municipality could have their representative (Transparency International, 2009).

As the time progressed, it became obvious that the created regional water industry enterprises were not able to provide enough capital for the needed revitalization and development of water industry infrastructures that were in some areas almost in a desolate state and needed significant investments. Since the state refused to take responsibility for financing of these investment-heavy projects and cities/municipalities were not sufficiently capital-equipped, the entry of private investors needed to happen.

4. FROM TRANSFORMATION TO PRIVATIZATION

At the end of the 1990s, the tendencies towards gradual actual privatization of the water industry enterprises commenced via a direct purchase of shares. In many divisions of owners of water industry infrastructure, it came to the transfer of ownership of separable (operational) property. For example, in the South Bohemian Region in its water industry, already in 1998, the

relation to the property changed this way in more than 90 cities and municipalities. The consequent privatization was joined by more than 45 regional water industry enterprises (MZe, 1999).

The biggest interest of investors (mostly abroad) was in the shares of large cities that provided water to densely populated areas or in enterprises that provided the management of large areas. For example, the enterprise Pražské vodovody a kanalizace a.s. was privatized this way which provided the provision, draining, and cleaning of water for the entirety of Prague and parts of the Central Bohemian Region. Ownership of the Prague water industry infrastructure remained (and remains until today) in the hands of the enterprise "Pražská vodohospodářská společnost" that is 100 % owned by the Prague City. Similarly, privatization took place in other water industry enterprises that decided to separate their operational part from their ownership structure. They signed a contract between the operational enterprise and the city (or the alliance of cities and municipalities) lasting longer than 20 years. The sale of the operational parts of the enterprises meant that cities received sufficient amount of finances and the transfer of responsibility of the operations of infrastructure.

5. REGULATORY FRAMEWORK OF WATER INDUSTRY

Already in 1991, the state applied a regulatory tool in the form of determining the maximum price of water, which differed for households and other customers. The year 1992 brought only small changes in the form of the deregulation of the prices of water for other customers, the limits of the maximum price of water for households, which was valorized yearly.

The change in the approach to regulation came in 1993, when the price of water for households was regulated via a factual price regulation. This approach to regulation is based in the COS method (*cost of service regulation*) – regulation of prices based in the amount of costs of production of services or products. This most common method is based in the sum of relevant expenses in connection with the production of products or services and on calculating the desired rates of return of the capital invested. Such an approach has several disadvantages, e.g. the information asymmetry between the regulator and the regulated enterprise. The regulator from its position is not able to understand all conditions and connections of the running of the given branch. The enterprise that functions within this branch has a higher level of information and can misuse its position. In the interest of increasing the regulated prices it can e.g. superfluously and inefficiently increase its capital investments (Stigler, 1971). Such an approach to price regulation can also cause a significant deviation from the average price of water – water from large companies costs anything from 14 CZK/m^3 do 22 CZK/m^3. Small enterprises were not able to compete with such low prices and their prices were higher by even 35 % (MFČR, 2019).

6. KEY REGULATORY INSTITUTIONS

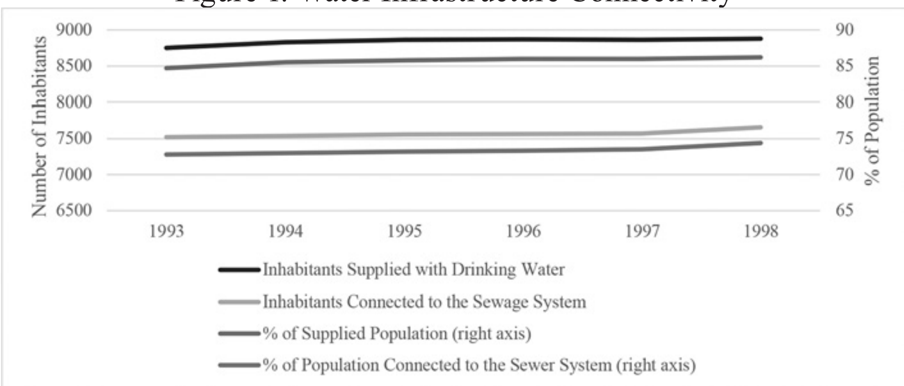
The regulation of the water industry and sewage systems is regulated by the Ministry of Agriculture of the Czech Republic, the Ministry of Finance, The Ministry of Environment, the Ministry of Health, the Ministry of Regional Development, the Office for the Protection of Competition, as well as the municipalities as owners of the water industry infrastructure (Hospodářská komora, 2015). For the end-consumers, the Ministry of Finance is key, whose functions in the area of water industry are the financial regulation and the overlooking of the rules of public regulations of prices of drinking water. The other institutions manage the issues of spatial planning of water industry objects, creating legislation in the area of water protection or water quality.

7. DEVELOPMENT OF KEY INDUSTRY INDICATORS

The form of the transformation process in the 1999s lead to the original market structure to crumble, overall 11 state-owned enterprises became around 45 regional water management enterprises and more than 1,200 small operators. Within Europe, the Czech Republic is nowadays – thanks to this transformation of the water industry – absolutely unique for its number of owners and operators of the water infrastructure (in 2017, the number of owners was 6,795 and the number of operators was 2,878). The next part of the article illustrates how the key market indicators developed during the process of transformation which ended in 1998.

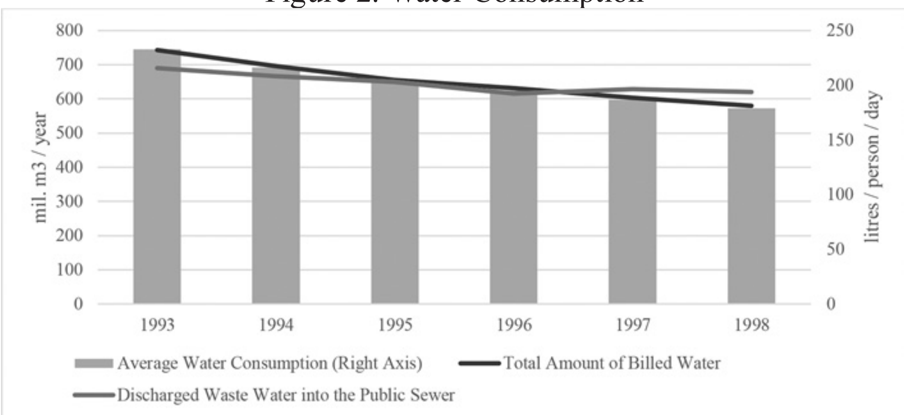
Drinking water has become somewhat more accessible for Czech consumers. While in 1993, 8.75 million citizens (figure 1) were connected to water infrastructure, which was 84.7 % of population, until 1998 the number grew to 8.88 million citizens (86.2 % of population). The number of people connected to the sewage system also slightly increased. In 1993, approximately 7.52 million citizens were connected to the sewage system. This number grew to about 7.66 million in 1998, which means that in 1998 74.4 % of Czech population were connected to the public sewage system.

Figure 1: Water Infrastructure Connectivity



Source: Ministry of Agriculture, Czech Statistical Office

Figure 2: Water Consumption



Source: Ministry of Agriculture, Czech Statistical Office

Although the number of inhabitants connected to the water system grew by 128 thousand between 1993 and 1998, the overall yearly volume of invoiced water decreased by 163.1 mil. m^3 of water. The explanation for this decreasing trend of invoiced water can be found primarily in the always decreasing average consumption of water. In 1993, the average water consumption

was 223 l per inhabitant per day, this value decreased to about 179 l daily in 1998 (figure 2). The decreasing trend is of course also caused by the development of technologies that brought more economical appliances to Czech households. With the decreasing water usage, the volume of water released into the sewage system also decreases. In 1993, the overall volume of water released into the sewage system was 666.2 mil. m^3 per year, by 1998 the overall yearly volume decreased to about 620 mil. m^3.

To connect more inhabitants to water infrastructure, it was necessary to revitalize and expand it properly. The overall length of the water infrastructure network grew from 1993 to 1998 by 4,054 km (table 1). The length of the sewage system infrastructure was lengthened by 2,329 km since 1993. A crucial indicator are the losses of water in the pipe network. Between 1993 and 1998, these losses were able to be lowered to an average amount of 71 liters per person and day, which meant a decrease by 29.7 %.

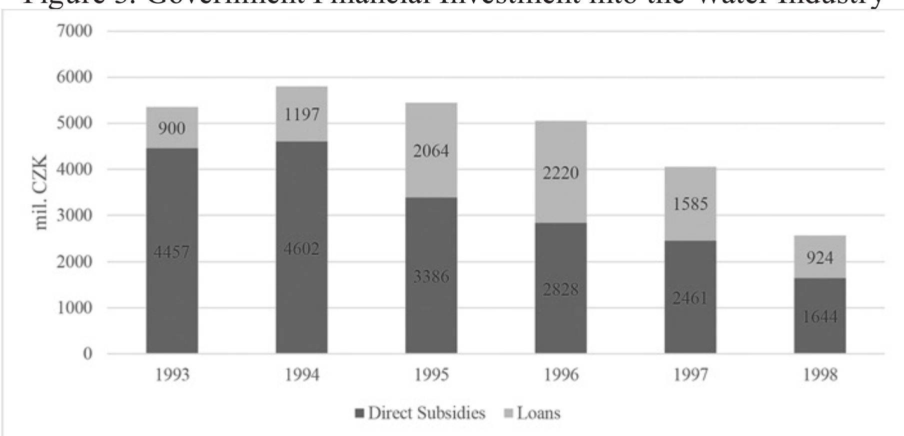
Table 1: Water Infrastructure Development

	1993	1998	Change (%)
Length of drinking water infrastructure (km)	45 579	49 633	+ 4 054 (+ 8,89 %)
Length of waste water infrastructure (km)	17 493	19 822	+ 2 329 (+ 13,31 %)
Water loss (liters/person/ day)	101	71	- 30 (- 29,7 %)

Source: Ministry of Agriculture, Czech Statistical Office

Figure 3 illustrates the development of state investments into the water industry. Already in 1994, the volume of direct investments was constantly decreasing. In 1994, the state directly invested financial sources in the amount of 4,602 mil. CZK. Until 1998, the volume of these investments decreased to 1,644 mil. CZK. The decrease of these investments was partially compensated by a higher volume of loans, although even this indicator significantly decreased until 1998.

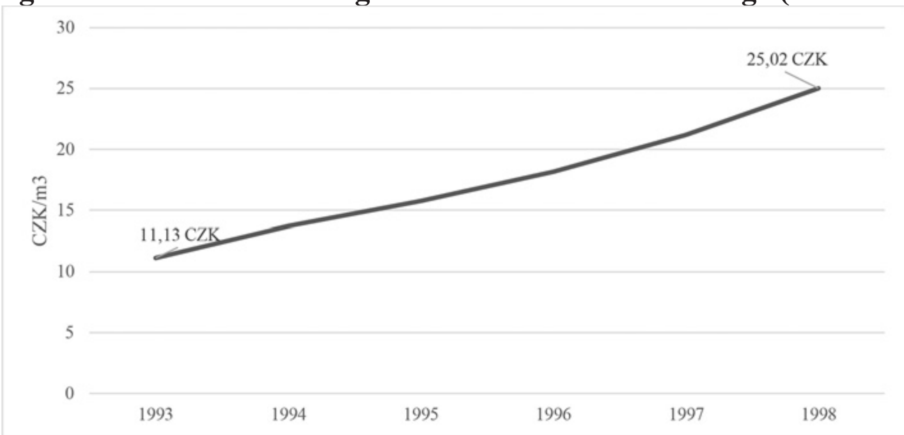
Figure 3: Government Financial Investment into the Water Industry



Source: Ministry of Agriculture

The last figure (figure 4) illustrates the development of the average price of water and sewage per household. Still in 1993, the average price per water and sewage was 11.13 CZK. Until 1998, this price grew to 25.02 CZK which means an increase of 125 %.

Figure 4: Household Average Price for Water and Sewage (CZK/m3)



Source: Ministry of Agriculture

An interesting comparison is included in Table 2. It illustrates how the purchasing power of the average wage changed over time. Meaning, what amount of the stated goods we could buy for the average wage in 1993 and 1998. In 1998, the Czech consumer could with an average wage purchase 429.75 kWh of electricity and 515.97 liters of petrol more than in 1993. The increase in price for water and sewage did not correspond with the increase in the average wage, which meant that water became more expensive. The average Czech consumer could therefore purchase 63.57 m^3 fewer of drinking water than in 1993. Such a quickly increasing price of water could be one of the reasons for more economic behavior of Czech households whose average water usage significantly decreased.

Table 2: Purchasing power of average wage

	1993	1998	Change (%)
Average wage	CZK 5,904	CZK 11,801	+ 5,897 (+99.98 %)
Water (m^3)	553.85	490.28	-63.57 (-11.48 %)
Fuel (l)	338.53	584.50	+515.97 (+ 72.66 %)
Electricity (kWh)	6,945.88	7,375.63	+429.75 (+ 6.19 %)

Source: Czech Statistical Office

8. CONCLUSION

The Czech water industry has come a long way since the 1990s. The deciding factor for the future of this branch was the transformation process, during which the infrastructural property was transferred to cities and municipalities that were supposed to then decide how to manage the newly gained property. The implementation of privatization projects leads to the fragmentation of the original 11 water industry enterprises into more than 40 regional water industry enterprises to which the municipalities were able to voluntarily invest their infrastructural property and still decide on the questions of management together with other representatives of cities that decided on the same approach. As a part of the privatization projects, newly established regional water works were constructed so that they could secure the deciding influence of cities and municipalities via major share ownership. The beneficial interest of municipalities of these newly established water enterprises (that municipalities received free of charge) was determined by their infrastructural property that they invested in the enterprise. Although the statutes of these regional waterworks allowed direct sale of shares only between the current owners (primarily cities) – which was supposed to prevent privatization of enterprise – the extensive process of privatization started in 1998 when the market was opened to domestic and foreign investors.

As seen by the development of key indicators of the branch, the water industry developed only slowly in the period of transformation. The number of inhabitants connected to the water and sewage infrastructure increased only slowly, as did the length of infrastructure. The decreasing average use of drinking water and the connected decreasing volume of invoiced water would additionally mean a significant loss of revenue for the water industry enterprises, which were therefore compensated by a relatively high increase in prices of water and sewage. Between 1993 and 1998, the average price of water and sewage increased by 125 %. Due to the insufficient state financial support of capital investments into water industry infrastructure, the later privatization process and entry of private investors onto the market was absolutely the rational conclusion of the unsustainable market development. The questionable development of the transformation process of the water industry also fragmented the entire market into the current state of more than 6,700 owners of water infrastructure.

REFERENCES

[1] Amos, P. (2004). *Public and private sector roles in the supply of transport infrastructure and services*: Operational guidance for World Bank staff.

[2] Bottasso, A., & Conti, M. (2003). *Cost Inefficiency in the English and Welsh Water Industry: An Heteroskedastic Stochastic Cost Frontier Approach*. Working paper, 2003.

[3] Carvalho, P., Marques, R. C., Berg, S. (2012). *A meta-regression analysis of benchmarking studies on water utilities market structure*. Utilities Policy, 21, 40-49

[4] Cave, M., Wright, J. (2010). *A strategy for introducing competition in the water sector*. Utilities Policy, 18, 116-119

[5] ČSÚ. (1999). *Statistická ročenka České republiky - 1998*. Praha, Česko

[6] ČSÚ. (2018). *Pan průměrný nakupuje*. Available at:

[7] https://www.czso.cz/staticke/mr_average/index.html#/

[8] Havlicek, R. (2005). Learning from privatisation of water services in Trencin, Slovakia. Balanyá et al.(eds) Reclaiming Public Water: Achievements, Struggles and Visions from Around the World, Transnational Institute and Corporate Europe Observatory, 201-212.

[9] Hospodářská komora České republiky. (2015, 22. duben). *65/15 Ustavení koordinačního subjektu k posílení regulace ve vodárenství*. [vid. 2018-15-08]. Available at:

[10] https://www.komora.cz/legislation/6515-ustaveni-koordinacniho-subjektu-k-posileni-regulace-ve-vodarenstvi-t-22-4-2015/

[11] Hlaváč, J. (2007). *Regulace, externality a globální vlivy ve vodárenství*. Sborník příspěvků vodohospodářské konference Zlín, 2007

[12] Klien, M. (2015). *Consolidation of water utilities: lessons from Central and Eastern Europe*: http://chaire-eppp.org/files_chaire/2015-05-23_consolidation.pdf

[13] Klien, M., Salvetti, M. (2018). *Water services in selected Central and Eastern European countries*. EUI Working papers, RSCAS 2018/08

[14] Lis, P. (2015). *Financialisation of the water sector in Poland* (No. wpaper101).

[15] Mejstřík, M. (2004). *Privatizace, regulace a deregulace utilit v EU a ČR: očekávání a fakta*. Working paper UK FSV – IES, No. 57, 2004

[16] Memon, F.A. and D. Butler (2003). *The Role of Privatisation in the Water Sector*. Water Perspectives, No. 1, March, pp. 28-36.

[17] Ministerstvo financí ČR (2019). *Pitná voda a odpadní odvedená voda*. Available at: https://www.mfcr.cz/cs/soukromy-sektor/cenova-regulace-a-kontrola/vyvoj-cenove-regulace-v-jednotlivych-odv/pitna-voda-a-odpadni-odvedena-voda-vodne-28754

[18] Ministerstvo zemědělství ČR. (1999). *Zpráva o stavu vodního hospodářství České republiky 1998*. Available at:
[19] http://eagri.cz/public/web/file/6523/vodni_zprava_1998.pdf
[20] Ministerstvo zemědělství ČR. (2018). *Vodovody a kanalizace ČR 2017.* Available at:
[21] http://eagri.cz/public/web/mze/voda/osveta-a-publikace/publikace-a-dokumenty/vodovody-a-kanalizace/vodovody-a-kanalizace-ceske-republiky-8.html
[22] Pangare, V., Kulkarni, N., & Pangare, G. (2004). *An Assessment of Water Sector Reforms in the Indian Context: The Case of the State of Maharashtra*. Geneva: UNRISD, 2004
[23] Péter, J. (2007). *Law and sustainability: The impact of the Hungarian legal structure on the sustainability of the water services*. Utilities Policy, 15(2), 121-133.
[24] Portál územního plánování. (2018). *Vodní hospodářství*. [vid. 2018-15-08]. Available at:
[25] https://portal.uur.cz/oborove-informace-o-uzemi/vodni-hospodarstvi.asp
[26] Saal, D. S., Parker, D., & Weyman-Jones, T. (2007). *Determining the contribution of technical change, efficiency change and scale change to productivity growth in the privatized English and Welsh water and sewerage industry: 1985–2000*. Journal of Productivity Analysis, 28(1-2), 127-139.
[27] Stigler, G. J. (1971). *The theory of economic regulation*. The Bell Journal of Economics and Management Science, 2(1), 3-21.
[28] Trasnparency International (2009). *Privatizace vodárenství v České republice: kam odtékají zisky?*. Praha, Česko
[29] Usnesení vlády České republiky č. 222 z 3.7. 1991
[30] https://kormoran.odok.cz/usneseni/usneseni_webtest.nsf/0/4E7B2100791C-7856C12571B600703103
[31] World Bank (2015). *Water and Wastewater Services in the Danube Region – A State of the Sector, regional report*. Vienna, Austria
[32] Statute No 92/1991 Coll.
[33] Statute No 138/1973 Coll.

DIFFERENCES IN INNOVATION PERFORMANCE OF VISEGRAD GROUP REGIONS

Eva Ivanová[1]
Jana Masárová[2]

DOI: https://doi.org/10.31410/EMAN.2019.635

Abstract: *Innovations play a significant role in the social and economic development of countries and regions. They have an impact on economic level and contribute to reducing the regional disparities. The innovation performance of regions can be evaluated by different ways using a number of diverse indicators. In this article we evaluate the innovation performance of regions using the data from the Regional Innovation Index by Regional Innovation Scoreboard. The aim of this article is to evaluate the innovation performance and the differences in innovation performance of NUTSII regions of Visegrad Group using selected variability variables. The method of analysis, mathematical-statistical methods, comparison and synthesis are used. Our research has shown that the highest innovation performance is performed by the regions of Praha and the Bratislava region. The largest relative differences in innovation performance between Visegrad Group regions are in indicators: Public private co publications, International scientific co publications, SMEs with marketing or organizational innovations and Innovative SMEs collaborating with others (more than 54%). The smallest differences are in indicators: Exports of medium high/high-technology intensive manufacturing, Most cited scientific publications, Trademark applications, and Non R&D innovation expenditures.*

Keywords: *Innovation, innovation performance, Regional innovation index, Visegrad group countries.*

1. INTRODUCTION

Being able to cope with changes in global economic environment, increasing competition and fast technological development impulses in the form of innovation are required. Innovation is the implementation process result of creativity, new idea or new knowledge (invention). This is the application of a new, progressive idea or method, i.e. applying the ideas in action to generate financial effects. Innovation as a result of science and research is one of the main factors affecting the competitiveness of companies, regions and national economies. They have an impact on economic level and contribute to reducing the regional disparities. The innovation performance of regions can be evaluated by different ways using a number of diverse indicators. In this article we evaluate the innovation performance of regions using the data from the Regional Innovation Index by Regional Innovation Scoreboard.

The aim of this article is to evaluate the innovation performance of NUTSII regions of Visegrad Group (Czech Republic, Hungary, Poland, Slovak Republic) and to evaluate the differences in innovation performance using selected variability variables (variation range, variation coefficient). We used the method of analysis, mathematical-statistical methods, comparison and synthesis in this article.

[1] Alexander Dubcek University of Trencin, Faculty of Social and Economic Development, Študentská 3, 911 50 Trenčín, Slovak Republic

[2] Alexander Dubcek University of Trencin, Faculty of Social and Economic Development, Študentská 3, 911 50 Trenčín, Slovak Republic

At NUTS II level Czech Republic (CR) has 8 NUTS II regions: Praha, Střední Čechy, Jihozápad, Severozápad, Severovýchod, Jihovýchod, Střední Morava and Moravskoslezsko. Hungary is divided into 7 NUTS II regions: Közép-Magyarország, Közép-Dunántúl, Nyugat-Dunántúl, Dél-Dunántúl, Észak-Magyarország, Észak-Alföld, Dél-Alföld. Poland is divided at NUTS II into 16 regions: Łódzkie, Mazowieckie, Małopolskie, Śląskie, Lubelskie, Podkarpackie, Świętokrzyskie, Podlaskie, Wielkopolskie, Zachodniopomorskie, Lubuskie, Dolnośląskie, Opolskie, Kujawsko-Pomorskie, Warmińsko-Mazurskie and Pomorskie. Slovak Republic (SR) is divided to 4 NUTS II regions: Bratislavský kraj, Západné Slovensko, Stredné Slovensko a Východné Slovensko.

2. THEORETICAL BACKGROUND OF REGIONAL INNOVATION PERFORMANCE

Even if the innovation category is a newer term in professional terminology, the issue of innovation and innovation performance is currently wildly well-developed. Innovation is closely related to the science and research and means any practical transformation of an idea into reality. The sequence of steps from invention creation, through innovation creation and its diffusion over the market is called the innovation process. It is about the process of creating and dissemination of innovation. The innovation process results in the innovation performance of company, state and region, which can be assessed through a complex of partial indicators.

Currently an increasing attention is payed to observing and comparing the innovation performance of regions. Rylková [1] made a comparison and evaluation of Moravian-Silesian and Zlin Region in terms of innovative activities and innovation performance. Pisár, Ďurčeková and Varga [2] in their paper identified state of Slovak regions based on methodology concerning state of EU regions in the connection to competitiveness of companies and tried to define strengths and weaknesses of innovation performance of the regions measured by Regional Innovation Index.

Zabala-Iturriagagoitia et al. [3] applied a Data Envelopment Analysis (DEA) methodology to the evaluation of regional innovation system performance. Their results show that the higher the technological level of a region, the greater is the need for system coordination. Where this is lacking there is a loss of performance efficiency compared with other similar regions. Hajek and Henriques [4] in their study aim to develop a model based on a multi-output neural network. This model shows that the multi-output neural network outperforms traditional statistical and machine learning regression models. In general, therefore, it seems that the proposed model can effectively reflect both the multiple-output nature of innovation performance and the interdependency of the output attributes.

Bednář and Halásková [5] used the analysis of convergence or divergence related to innovation performance and R&D expenditures among Western European NUTS 2 regions. Applying differential local version of spatial autocorrelation (LISA), difference-in-difference estimation, the paper reveals the local variation of convergence and divergence and general spatial regime divergence in innovation performance and R&D expenditures within Western European NUTS 2 regions.

The issue of regional development is closely linked to the process of creating innovation and innovation performance of regions. Innovation is foundation for productivity growth, competitiveness of companies and subsequent regional growth. [2]

3. THE EVALUATION OF INNOVATION PERFORMANCE OF V4 REGIONS

The innovation performance of regions can be assessed in different ways using a number of indicators. In this paper the innovation performance in the regions of Visegrad Group countries is to be assessed by means of the Regional Innovation Index (RII) by Regional Innovation Scoreboard [6] The Regional Innovation Index summarizes the performance on 18 indicators (Table 1).

Table 1: Regional Innovation Index indicators

No.	*Indicator*	*No.*	*Indicator*	*No.*	*Indicator*
1	Population with tertiary education	7	Non-R&D innovation expenditures	13	EPO patent applications
2	Lifelong learning	8	Product or process innovators	14	Trademark applications
3	Scientific co-publications	9	Marketing or organizational innovators	15	Design applications
4	Most-cited publications	10	SMEs innovating in-house	16	Employment medium and high-tech manufacturing & knowledge-intensive services
5	R&D expenditure public sector	11	Innovative SMEs collaborating with others	17	Exports medium and high-tech manufacturing
6	R&D expenditure business sector	12	Public-private co-publications	18	Sales of new-to-market and new-to-firm innovations

Evaluated regions are grouped into four innovation performance groups: Innovation Leaders, Strong Innovators, Moderate Innovator, and Modest Innovators.

Within the innovation performance assessment of regions, the European Commission uses the year of 2011 as a base year and recalculates the innovation performance of regions in upcoming years. [6]. The innovation performance of regions depends on reported indicators showing irregular fluctuations, which affects the overall assessment of individual regions in particular years. The Figure 1 shows the innovation performance comparison of the V4 countries in 2011 and 2017 and their average rating.

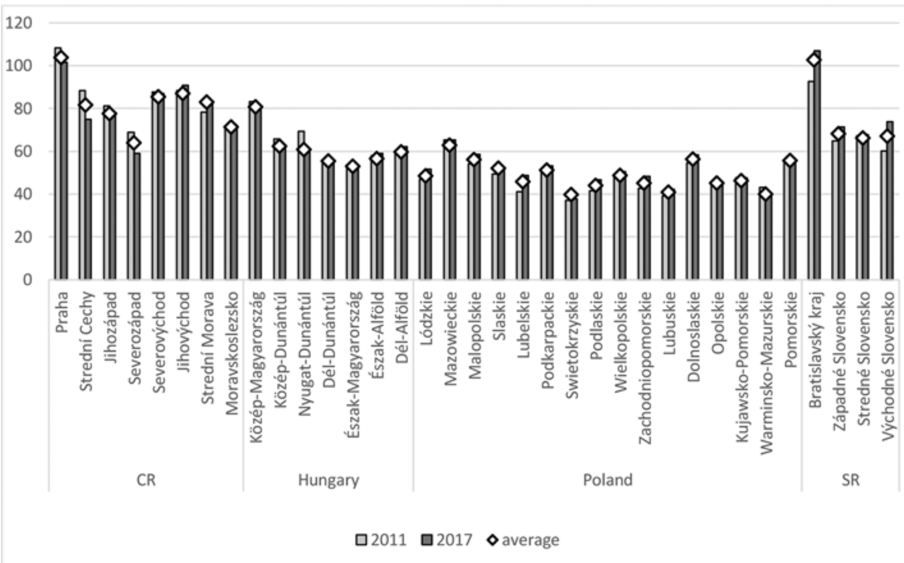


Figure 1: Innovation performance of V4 regions

The innovation performance of V4 regions (apart from Praha and Bratislava regions) is significantly below the EU average (from the year of 2011). In 2017 Bratislava Region has the highest innovation performance among the V4 countries, followed by Czech regions (Praha, Jihovýchod, Severovýchod). Also, in Hungary and Poland, the highest innovation performance is achieved by regions with capital cities (Közép-Magyarország, Mazowieckie).

The overall assessment of regions' innovation performance depends on the evaluation of sub-indicators. In Figure 2 we present the minimum, maximum and average indicator values in the regions of V4 in 2017.

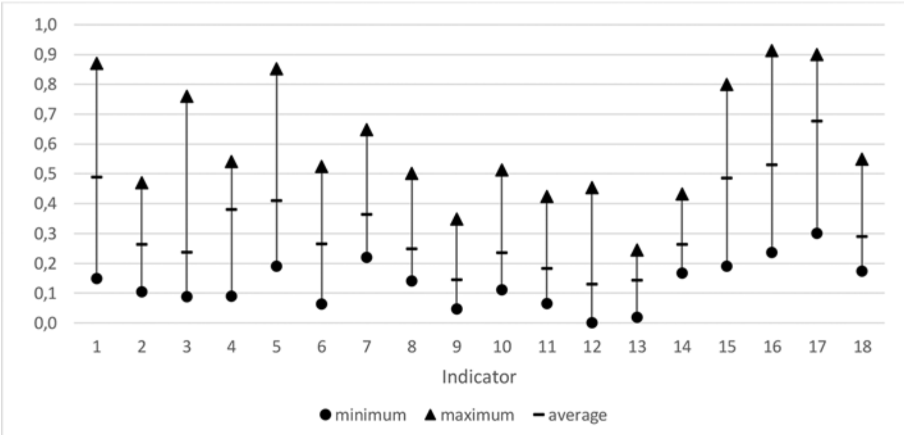


Figure 2: Comparison of minimum, maximum and average of RII indicators in V4 regions in 2017

In 2017 the best evaluation of V4 regions has been reached in indicators 16 (Employment medium and high-tech manufacturing & knowledge-intensive services), 17 (Exports medium and high-tech manufacturing), 1 (Population with tertiary education) and 5 (R&D expenditure public sector). The least successful are in indicators 13 (EPO patent applications), 9 (Marketing or organizational innovators), 14 (Trademark applications) and 2 (Lifelong learning).

The comparison of absolute differences (variation range) and relative differences (variation coefficient) within the RII indicators assessment in V4 regions is shown in Figure 3.

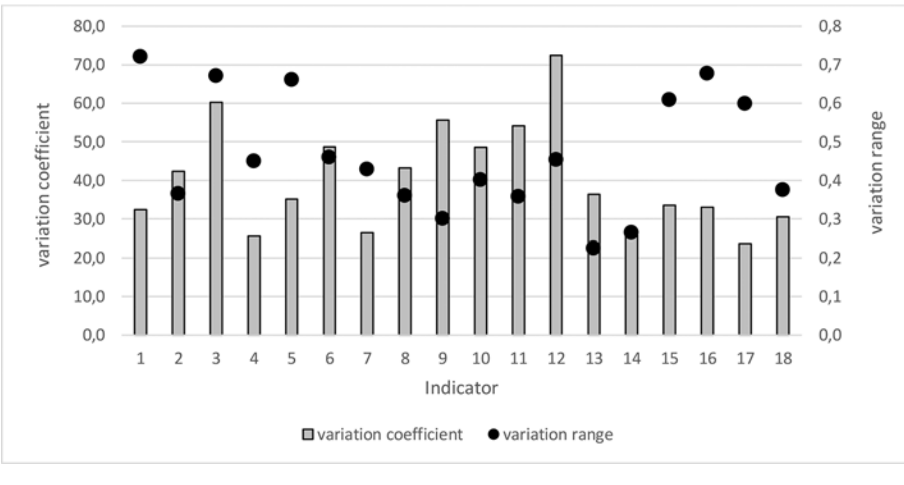


Figure 3: Differences in RII indicator assessment in V4 regions

The largest absolute differences between regions in V4 countries are in indicators 1 (Population with tertiary education), 16, 3, 5. The largest relative differences are in indicators 12 (Public-private co-publications), 3, 9 and 11 (more than 50%). The smallest absolute differences are in indicators 13 and 14, the smallest relative differences are in indicators 17 (Exports medium and high-tech manufacturing), 14 (Trademark applications), 4 (Most-cited publications) and 7 (Non-R&D innovation expenditures).

5. CONCLUSION

Innovations play a significant role in the social and economic development of countries and regions. They ensure the balanced economic growth of a state and region as well the growth of added value.

In this paper we have compared the innovation performance within the NUTS II regions in Visegrad Group countries. Our research has showed that the innovation performance in V4 countries is significantly below the average level of EU innovation performance (except for the regions of Praha and Bratislava). Regions with the capital cities have reached the highest innovation performance in Visegrad Group countries. Overall, Praha region had the highest innovation performance in 2011, in 2017 it was Bratislava region. The region of Bratislava appears to be very dominant in terms of innovation performance assessment in Slovakia. The lowest innovation performance has been achieved in the regions of Poland.

When it comes to the evaluation of individual indicators RII in 2017, the best evaluation of V4 regions has been reached in indicator Employment medium and high-tech manufacturing & knowledge-intensive services, the worst evaluation in EPO patent applications.

The largest relative differences in innovation performance between Visegrad Group regions (more than 54%) are in indicators: Public private co publications, International scientific co publications, SMEs with marketing or organizational innovations and Innovative SMEs collaborating with others. The smallest differences are in indicators: Exports of medium high/high-technology intensive manufacturing, Most cited scientific publications, Trademark applications, and Non R&D innovation expenditures.

As the innovation performance of V4 countries is at an insufficient level, an effective R&D policy and adequate innovation policy must be developed and implemented by particular governments, highlighting its regional dimension. In the same way Hajek, Henriques [4] stated that the regional innovation performance is an important indicator for decision-making regarding the implementation of policies intended to support innovation.

Similarly, Knošková and Dudeková [7], Haviernikova, et al. [8], Kordoš and Krajňáková [9] argue that high-quality research and development, functioning systemic innovation support and a functional intellectual property protection system are necessary issues for innovation to bring the economy the greatest benefits.

REFERENCES

[1] Rylková, Ž. (2010) Innovation performance of regions, NÁRODNÁ A REGIONÁLNA EKONOMIKA VIII, Košice: Technical University of Košice, Faculty of Economics, pp. 847-855.

[2] Pisár, P., Ďurčeková, I., Varga M. (2017) Competitiveness of companies and innovation performance of the regions, Acta aerarii publici, Vol. 14, No. 2 (2017), pp. 60-69.

[3] Zabala-Iturriagagoitia J. M., Voigt P., Gutiérrez-Gracia A., Jiménez-Sáez F. (2007) Regional innovation systems: how to assess performance, Regional Studies, 41, pp. 661–672.

[4] Hajek P, Henriques R (2017) Modelling innovation performance of European regions using multi-output neural networks, PLoS ONE, 12(10): e0185755, https://doi.org/10.1371/journal.pone.0185755.

[5] Bednář, P., Halásková, M. (2018) Innovation performance and R&D expenditures in Western European regions: Divergence or convergence? Journal of International Studies, 11(1), 210-224, doi:10.14254/2071-8330.2018/11-1/16.

[6] European Commission. (2017) Regional Innovation Scoreboard 2017, retrieved from http://ec.europa.eu/docsroom/documents/23881

[7] Knošková, Ľ., Dudeková, A. (2015) Slovakia Innovation Performance in Context of European Union, Studia commercialia Bratislavensia, Vol. 8, No. 31 (3/2015), pp. 393-406.

[8] Havierniková, K., Kordoš, M., Navickas, V. (2018) The motivation of Slovak small and medium entrepreneurs towards cluster cooperation, *Transformations in business & economics,* Vol.17, No.3, pp.91-101.

[9] Kordoš, M., Krajňáková, E. (2018) Significance of innovation in Slovak regions - issues and challenges, *Ad alta-journal of interdisciplinary research*, Vol.8, No.1, pp.137-141.

ASSESSMENT OF THE LABOUR MARKET SITUATION IN THE VISEGRAD GROUP CAPITAL REGIONS

Jana Masárová[1]
Eva Koišová[2]

DOI: https://doi.org/10.31410/EMAN.2019.641

Abstract: *Over time, social, economic, historical and political events in countries have established conditions for uneven regional development. Uneven regional development is conditioned by resources of the region, such as physical characteristics, human resources, technical, economic and social conditions. Economic and social developments in the state and individual regions have a direct impact on the labour market. The differences in the labour market are sensitively perceived, because of the potential for disproportionate differences in the living standard of inhabitants of individual regions. In most countries, the best-performing regions are the capital regions. The aim of the paper is to examine and evaluate the situation on the labour market in the capital regions of the Visegrad Group (Bratislavský kraj, Praha, Közép-Magyarország and Mazowieckie) using selected indicators of labour market. We use the time series analysis of selected indicators, mathematical-statistical methods, comparison and synthesis in this article. The statistical data are drawn from the Eurostat database. Our research has shown that the best results of the labour market indicators are reported by the region of Praha.*

Keywords: *labour market, human resources, employment, unemployment, long-term unemployment, tertiary education, Visegrad Group, capital regions.*

1. INTRODUCTION

Economic and social development of the country is directly influenced by the situation on the labour market. The labour market represents the space where the labour forces try to get the most advantageous employment and employers try to get suitable employees.

We evaluate the labour market situation in the Visegrad Group (V4) capital regions (Slovak Republic: Bratislavský kraj, Czech Republic: Praha, Hungary: Közép-Magyarország, Poland: Mazowieckie) in this article. We examine the development of employment rate, unemployment rate, long-term unemployment rate and the share of population with tertiary education with the aim to find out similarities respectively disparities on the labour market development in the regions of the mentioned countries.

We use the time series analysis of selected indicators, mathematical-statistical methods, comparison and synthesis in this article. We use the scoring method methods of multi-criteria evaluation. In scoring method, each parameter is assigned the region, which scored the best value, 100 points, and other regions are assigned indicator points as follows:
- if the maximum value is the best value (employment rate, tertiary education):

$$b_{ij} = \frac{x_{ij}}{x_{j\,max}} \times 100 \tag{1}$$

[1] Alexander Dubček University of Trenčín, Faculty of Social and Economic Relations, Department of Economy and Economics, Slovakia

[2] Alexander Dubček University of Trenčín, Faculty of Social and Economic Relations, Department of Economy and Economics, Slovakia

- if the minimum value is the best value (unemployment rate, long-term unemployment rate):

$$b_{ij} = \frac{x_{j\,min}}{x_{ij}} \times 100 \qquad (2)$$

where:

x_{ij} = the value of j-th variable in the i-th region
x_{jmax} = highest value of the j-th variable
x_{jmin} = lowest value of the j-th variable
b_{ij} = the scores of the i-th region for the j-th variable.

Next, the integral variable d_i, as the sum of the points for the indicators set for each region is calculated. The best results of observed variable reach the region in which the integral indicator d_i reaches the maximum value.

The statistical data are drawn from the Eurostat database [1]. The analyzed period is the period 2007-2017.

2. THEORETICAL FOUNDATIONS OF THE LABOUR MARKET AND HUMAN RESOURCES

The labour market is a complexly interconnected environment with an array of factors. On one hand, economic effects, in fact the level of economy, influence labour demand. On the other hand, social-demographic effects such as the level of education or age structure of population influence labour supply and thus represent a counterforce. [2] Labour market is not only sensitive about the changes which happen inside the economy of the particular country, but also about the processes which are in progress in the world economy. [3] Labour market works with the most valuable capital of the economy - human capital which is **also work carrier.**

The labour market situation influences upon standard of living of the region citizens, employers and it contributes to the overall region level. The decisive indicators by which the situation on the labour market is evaluated are employment, unemployment and long-term unemployment. These indicators belong to the most important indicators of the regional disparities which are used in the studies of authors such as [4] - [9].

In the country, the biggest differences exist between underdeveloped (rural, peripheral) and metropolitan regions, respectively regions located around capital city. In the most cases metropolitan regions are the most developed. Authors [9] state, that concentration of financial, socio-cultural, economic and informational flows of society development in large cities and areas of their influence in the region (regional metropolises), as well as realization of socially significant functions in modern conditions, are important determinants of the country's efficient mechanisms of spatial policy development. Authors [11] state that in developed regions wealth and experience sharing are cumulated.

According to the mentioned authors perpetual increase of regional diversifications can lead to a concentration of capital, labour and technologies in developed regions. These can result in heavy load of the developed region infrastructure, environment protection and social security.

In underdeveloped regions, there is a tendency for drain of capital, technologies and labour force.

In general, capital cities are the richest regions in country. [12] The capital city of any country is the center of social, cultural and notably economic activities in the country. These cities are the target of migrated labour force which is looking for better working fulfilment compare to their birthplaces. The companies with statewide coverage are located in the capital cities. In these cities, there is significant concentration of capital and economic activities.

3. EVALUATION OF THE LABOUR MARKET SITUATION IN THE V4 CAPITAL REGIONS

We evaluate the labour market situation in the V4 capital regions using these indicators: employment rate, unemployment rate, long-term unemployment, population aged 25-64 with tertiary education.

Employment is an important indicator of the economy's health. Employment can be defined as the engagement of working population in the process of creating new products and services. Employment is analyzed through the employment rate indicator, which is the share of the number of working people aged 15-64 on the total population aged 15-64, expressed as a percentage (Figure 1).

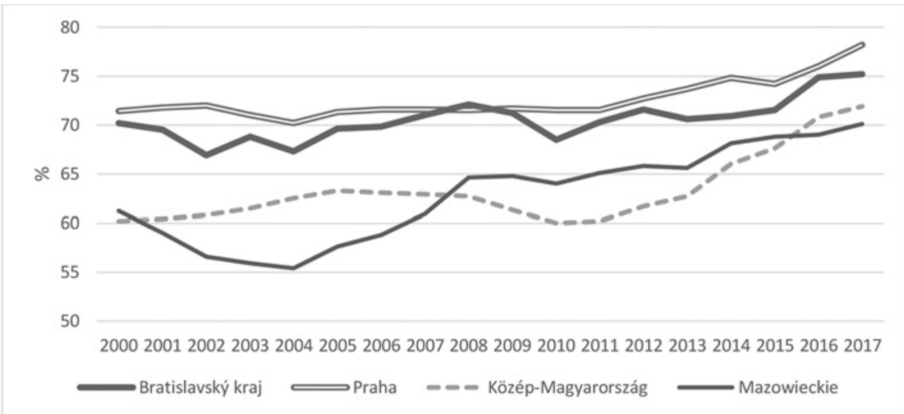


Figure 1: Comparison of employment rates in V4 capital regions (%)

The Figure 1 indicated that there were fluctuations in employment rates in the V4 capital regions with an upward trend towards the end of the period under analysis. The highest employment rates were in the regions of Praha (without 2008), Bratislava region was ranked second. The lowest employment rate was recorded in Mazowieckie in 2001-2006 and 2016-2017, and in Közép-Magyarország in other years.

Unemployment is a negative phenomenon in the economy which is associated with labour market imbalances. Unemployment is a situation in the labour market where someone of working age is not able to get a job but would like to be in employment. Figure 2 shows the development of unemployment rates in capital regions of V4 countries.

The Figure 2 shows fluctuations in unemployment rates over 2000-2017. The highest unemployment rates were recorded in 2003 in Mazowiecke region (16.8%). There is a large distance the Mazowieckie region from other regions in the early years of the review period.

In the following years, the unemployment rates declined, and rose from 2008 as a result of the global economic crisis. The unemployment rate declined in recent years. The lowest unemployment rate is in the Praha region (only 1.9% in 2008; 1.7% in 2017).

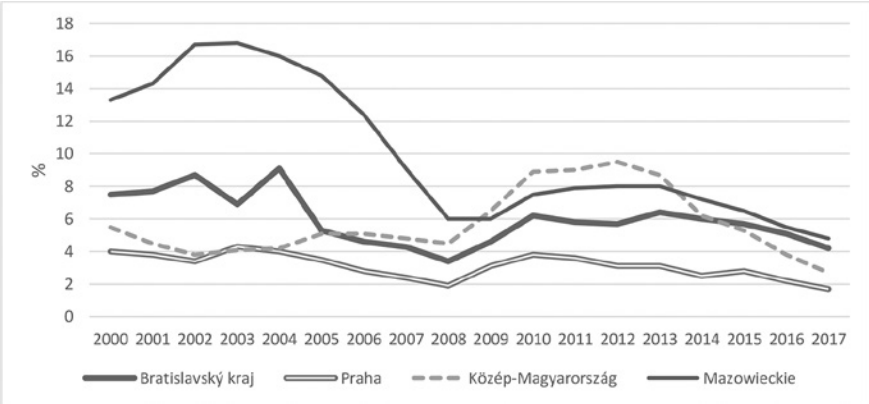


Figure 2: Comparison of unemployment rates in V4 capital regions (%)

The evolution of unemployment had also an impact on the evolution of the long-term unemployment. **Long-term unemployment** (unemployment longer than one year) has negative economic, social and psychological consequences for society and affected individuals. Long-term unemployment reflects structural changes in the labour market, regional disproportions in the supply of and demand for work or labour migration. The development of long-term unemployment is examined on the basis of the long-term unemployment rate, which is the percentage of the number of long-term unemployed in the total number of economically active population.

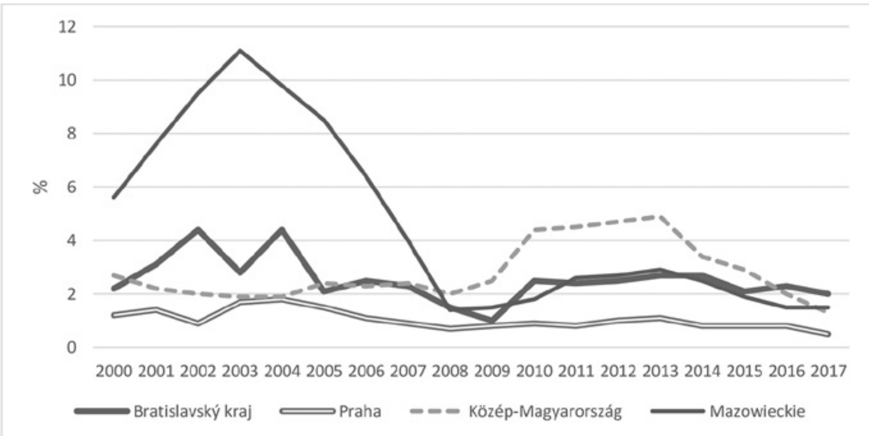


Figure 3: Comparison of long-term unemployment rates in V4 capital regions (%)

Like the rate of unemployment, the highest long-term unemployment rate was recorded in Mazowieckie region in 2003 (11.1%). However, it was gradually decreasing and it dropped below 2% in recent years. The best region for long-term unemployment was the Praha region where the unemployment rates stood below 2%, and towards the end of the analyzed period even below 1%.

The quality of human resources depends on the level of obtained education. Education plays a significant role in the societal development. Education helps improve the standard of living and quality of life. **Tertiary education** can substantially contribute to sustainable economic growth and human capital development. We evaluate the quality of human resources by indicator population aged 25-64 with tertiary education (levels 5-8). The shares of population with tertiary education in V4 capital regions are shown in Figure 4.

In 2000, the highest share of persons with tertiary education was in the Bratislava region (26.1%), the worst situation was in Mazowieckie region (15.1%). The rate of persons with tertiary education was increasing in analyzed period, except for Közép-Magyarország region in recent years. The largest share of population with tertiary education was in Praha region in 2017 (45.6%). The participation in education is very high because of young people participate in permanent education.

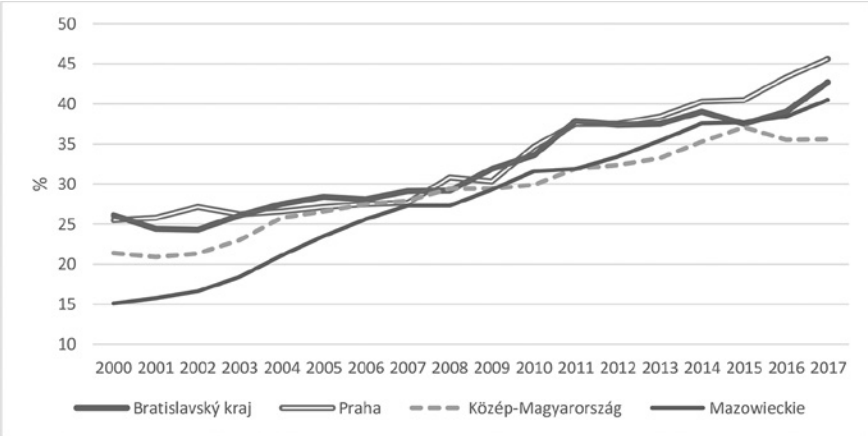


Figure 4: Comparison of tertiary education shares in V4 capital regions (%)

4. FINAL ASSESSMENT OF THE LABOUR MARKET SITUATION IN V4 CAPITAL REGIONS

We realized the final evaluation of the labour market situation by means of the selected indicators using scoring method. The results are depicted in Figure 5.

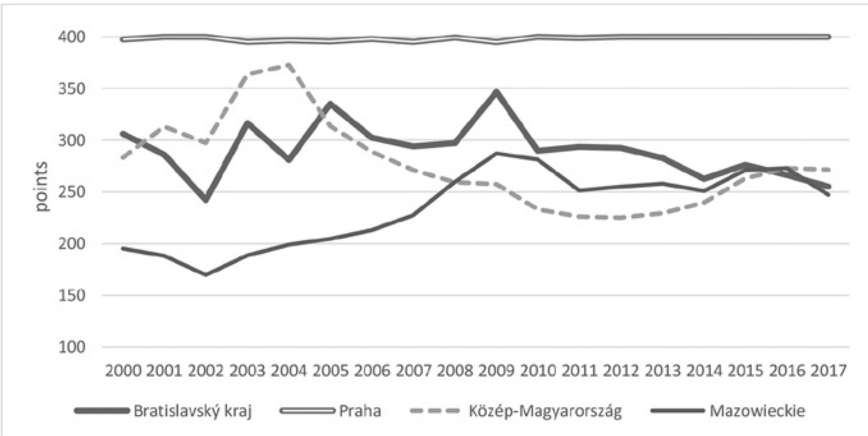


Figure 5: Result of scoring method in V4 capital regions

The Figure 5 shows that the highest scoring was in the Praha region in all analyzed period. The evaluation of other regions is shuttled. In recent years, other regions got almost the same evaluation. However, they have the biggest distance from the Praha region. Region Mazowieckie got the worst evaluation in 2002 (169.70 points).

5. CONCLUSION

The labour market development of the Visegrad Group countries has been influenced notably by the changes which were in progress during events such as: economic transformation, entering the EU and also world economic crisis. These events contributed to the fact, that economic and social disparities between the capital regions and main regions are decreasing insufficiently.

The significant disparities at a level of regions produce many problems and many negative accompanying consequences in a particular state. Distinctively, labour market disparities are very sensible themes where there are decisions about utilizing or not utilizing the most valuable production resource – human capital.

The aim of the paper was to examine and evaluate the situation on the labour market in the capital regions of the Visegrad Group (Bratislavský kraj, Praha, Közép-Magyarország and Mazowieckie) using selected indicators of labour market: employment rate, unemployment rate, long-term unemployment rate and the share of population with tertiary education.

We have found out by means of research that Czech region Praha achieves the best results in all four examined labour market indicators comparing to capital cities and all regions of Visegrad Group. We used scoring method to proof this fact. It also pointed to the fact that just in this region there is the biggest stability on the labour market during observed time period.

REFERENCES

[1] Eurostat. (2018) *Database*, available at: https://ec.europa.eu/eurostat/data/database.

[2] Dohnalová, Z., Lipková, J. (2013) Development of Labour Market in the Czech Republic in Comparison to the Employabilty of University graduates, *Trends Economics and Management*, Vol. VII, Iss. 14.

[3] Ivanová, E. (2010) Vplyv globálnej hospodárskej krízy na trh práce v SR, *Sociálno-ekonomická revue,* Vol. 8, No 3 (2010), pp. 22-26.

[4] Quadrado, L., Heidman, W., Folmer, H. (2001) Multidimensional Analysis of Regional Inequality: The Case of Hungary, *Social Indicators Research*, Vol. 56, No. 1, pp. 21–42.

[5] Förster, M., Jesuit, D., Smeeding, T. (2005) Regional poverty and income inequality in Central and Eastern Europe: evidence form the Luxembourg Income Study, In: Kanburand, R., Venables, A. J., eds.: *Spatial inequality and development.* Oxford, Oxford University Press, pp. 311-347.

[6] Soares, J. O., Marquês, M. M. L., Monteiro, C. M. F. (2003) A multivariate methodology to uncover regional disparities: a contribution to improve European Union and governmental decisions, *European Journal of Operational Research*, Vol. 145, Iss. 1. pp. 121-135.

[7] Blažek, J. (2005) Trends to Regional Disparities in the Czech Republic in Pre-Accession Period in European Context, *Geographia Polonica*, 78, 2, pp. 91-106.

[8] Goschin, Z., Constantin, D., Roman, M., Ileanu, B. (2008) The Current State and Dynamics of Regional Disparities in Romania, *Romanian Journal of Regional Science*, Vol. 1, No. 2, pp. 80-105.

[9] Měrtlová, L. (2012) Porovnání regionálních disparit v regionech České republiky, *XV. mezinárodní kolokvium o regionálních vědách,* Brno: MU, pp. 81-90.

[10] Melnyk, M., Synyutka, O., Kushniretska, O. (2016) Spatial policy of regional metropolis development in Ukraine: conceptual principles of formation, *Economic Annals-XXI* (2016), 159(5-6), pp. 43-47.
[11] Liua, B., Xua, M., Wanga, J., Xiea, S. (2017) Regional disparities in China's marine economy, *Marine Policy*, Vol. 82, pp. 1-7.
[12] Hudcovský, M. (2017) Do ktorého hlavného mesta z krajín V4 sa oplatí mladým migrovať za prácou? *Monitor hospodárskej politiky*, Vol. 1, No. 3, pp. 3-5.

THE DECLINING POWER OF BULGARIAN TRADE UNIONS IN THE PROCESS OF GLOBALIZATION AND DEVELOPMENT OF INFORMATION SOCIETY*

Marieta Hristova[1]

DOI: https://doi.org/10.31410/EMAN.2019.649

Abstract: *The goal of this report is to examine how the power of trade unions in Bulgaria has been declining over the past decades paralleled by similar European processes. Proof of this thesis includes indicators such as trade union density, coverage of collective bargaining, degree of centralization and decentralization of negotiation, etc.*

Data from the European Social Survey – fifth wave (2010) is analyzed to give an indication who and what the trade union members are and what are the factors that define the status of the workers as union members.

The biggest challenges for trade unions are to cope with various changes that occur in the nature, content, and organization of work, employment and division of labour, as well as changing working, economic, cultural and social relationships.

Keywords: *Bulgarian trade unions, union density, union member, declining power, ESS.*

1. INTRODUCTION

Industrial relations and social dialogue at the national level in Bulgaria have intensified after the political changes of 1989. An enhanced institutionalization of the labour market is observed in this period as well.

The major labour unions in Bulgaria are two:

- The Confederation of Independent Trade Unions in Bulgaria (CITUB), which since its establishment in 1990 has retained its position as the largest trade union organization in Bulgaria. CITUB was recognized as a representative trade union at a national level for the first time during the establishment of the Tripartite Cooperation Process, on 22 February 1993 by Decision of the Council of Ministers № 59. CITUB was recognized as a labour union uniting 1 663 821 workers from almost all the sectors and areas of employment in Bulgaria.
- Confederation of Labour "Podkrepa" (CL "Podkrepa") was formed in February 1989. In its application for obtaining the status of a representative organization of employees at the beginning of 1993, CL "Podkrepa" declares over 500 000 members and was recognized as a representative organization by Decision of the Council of Ministers № 60 of 22 February 1993.

On one hand, most of the problems that trade unions in the country have are in result of their antagonism and competition with one another since the beginning of changes in Bulgaria in

* The author's participation in EMAN 2019 Conference is a part of a research project „European Social Survey in Bulgaria (ESS)", which is part of the National Roadmap of Scientific Infrastructure, financed by Ministry of Education and Science of Bulgaria.

1 Department of Economic Sociology, University of National and World Economy, Sofia, Bulgaria

1989. On the other hand, they both are facing similar challenge of declining trade union density and difficulties to maintain their national representativeness.

Since the beginning of the century both trade unions have experienced fierce internal opposition to any change in the status quo. The reasons for this resistance can be traced back to their reluctance to share influence.

Both trade unions have well-established structures at all levels, enabling them to participate adequately in the social dialogue. However, they continue failing to attract enough new members, especially in new enterprises and industries which could give them a basis for broadening their impact. This happens despite the evident processes of reduction of traditional economic sectors and industries, decrease of number of employees and disappearance in practice of key enterprises and whole professions all together.

With the transformation of society in the direction of deindustrialization the role of the trade unions, as representatives of industrial labour, decreases. Therefore, they make great efforts to prevent the emergence of other trade unions in the socio-economic space, so no one could take away some of their members and influence. The tendency of decreasing number of trade union members is a problem not only in Bulgaria. To cope with this trend the Trade Unions have focused on unionization campaigns directed at the small and medium enterprises, workers in new forms of employment, have targeted young people and so on.

2. THE DECLINING POWER OF TRADE UNIONS

The power and influence of trade unions in Bulgaria has been declining in recent decades. As a proof of this thesis indicators such as coverage of collective bargaining, degree of centralization and decentralization of bargaining and trade union density can be considered.

Establishing and regulation of the relationship between employers and employees

The mechanism for regulation of relationships between employers and employees is implemented through a system of collective bargaining and contracts. The collective agreements are an integral part of the cooperation and interaction that is carried out in regulating the issues related to labour and employment, pay and working conditions, social security, living standards and other issue established with the Labour Code.

Some declare collective bargaining as a democratic method and procedure for settling the relationship between the representatives of labour and capital, as an essential prerequisite for maintaining social peace, to achieve the necessary national consensus on the priorities of economic and social development of the country. However, this is debatable, since the conditions agreed via collective bargaining are automatically extended to all union members, even if they don't meet the preconditions for complying with them. From there steam some problems and conflicts between employers themselves.

The total number of existing collective labour agreements (CLAs) in the country at the end of each year has been declining gradually since 2012. At the end of 2017 CLAs were 1 981, and they decreased with 11.6% compared to 2011. This overall decrease occurred mainly due to the decrease in the active CLAs at company level, which fell by 12.9% for the period. The actual

level of CLAs per sector also decreased in this period with 9.5%, while those at a municipal level increased with 7.1%. CLAs at company level are mainly signed in public sector enterprises (87.5%), while in the private sector they are 12.4% of all agreements in 2017. During the same year, about 70% of CLAs in the private sector were signed with local enterprises and 30% with foreign companies.

The duration of collective agreements is usually two years and the main topics covered are pay, working conditions, compensation for night work and work in dangerous conditions, organization of working time and annual leave, pension and health insurance, and others.

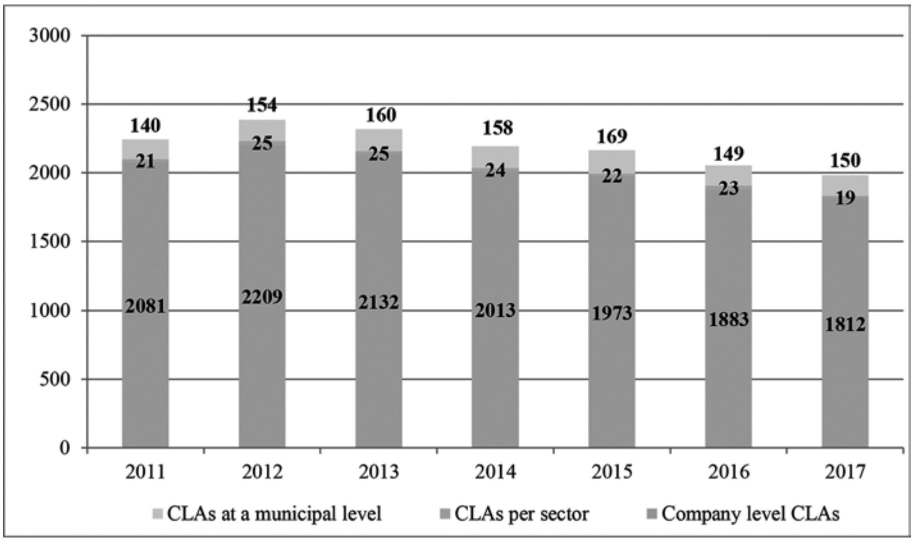


Figure 1. Active collective labour agreements (CLAs) by levels of negotiation
as at 31 December of each year for the period 2011-2017.
Source: Database of CLAs and CLDs of National Institute
for Conciliation and Arbitration (NICA).[1]

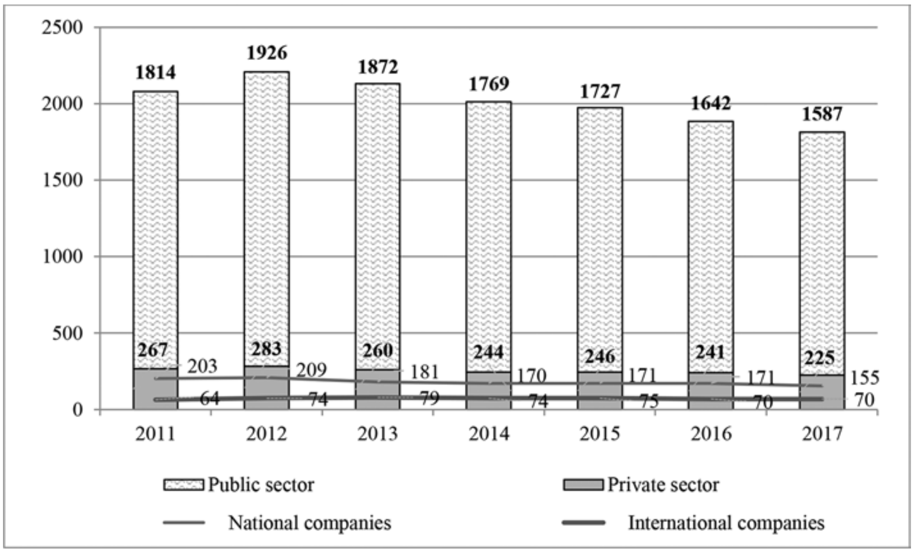


Figure 2. CLAs by type of company (numbers)
as at 31 December of each year for the period 2011-2017.
Source: Database of CLAs and CLDs of National Institute
for Conciliation and Arbitration (NICA).[1]

Coverage of CLAs

The data in table 1 shows that for the last five years, despite the declining number of active CLAs at a company level, the dynamics of the coverage of employees, for which the active CLAs are in force has fewer fluctuations. For the studied period, the highest figures were in 2012 when was the most significant number of active CLAs at the company level. Although the number of CLAs for the period has decreased by 11.7% in total, the number of employees in the companies has decreased by only 372 people. The relative share of employees, for whom the existing CLAs at a company level are in force, to the total number of all employed in the country for the period is between 13.1 and 14.8%. At the end of the period, it comes down to 13.2%.

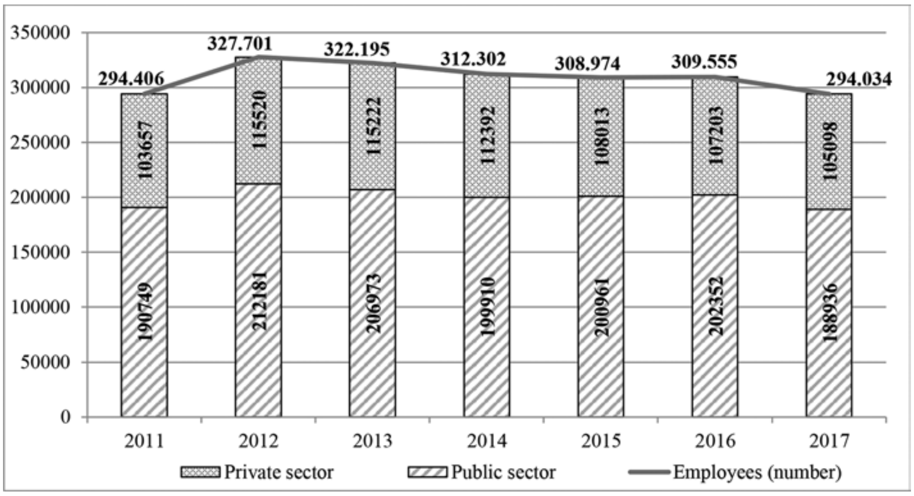
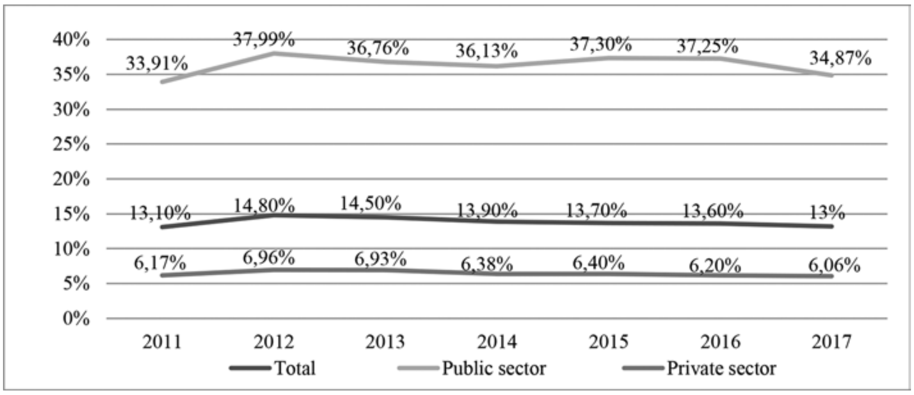


Figure 3. Employees, for whom the existing CLAs at a company level are in force.
Source: Database of CLAs and CLDs of NICA.[1]

Table 1. Share of employees, for whom CLAs at a company level is in force,
compared to all employees in the country.

	2011	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*
Total	13.1%	14.8%	14.5%	13.9%	13.7%	13.6%	13.2%
Public sector	33.91%	37.99%	36.76%	36.13%	37.30%	37.25%	34.87%
Private sector	6.17%	6.96%	6.93%	6.38%	6.40%	6.20%	6.06%



Source: Database of CLAs and CLDs of NICA.[1]

In fact, the number of employees with active CLAs is higher. The reason is that table 1 does not account for municipal employees and some of the small companies, which are covered under broader sectoral or industry-wide CLAs.

Trade union density

Trade union membership significantly decreased during the years of economic transitions in Bulgaria as a result of increased unemployment rate, privatization of big state enterprises, and negative attitude of private employers towards workers' unionization, combined with lower level of workers' trust in the institution of trade unions.

Changes in employment rate influenced level of trade union density over the years. When the employment rate is high, the relative share of trade union members is lower. When the number of employees decreases, the union density increases because the majority of workers dismissed are not trade union members.

Table 4. National trade union organizations. Trade union membership and trade union density.

	Number of members					
	1993	*1998*	*2003*	*2008*	*2012*	*2016*
Confederation of Independent Trade Unions in Bulgaria – CITUB	1 663 821	607 883	393 191	328 232	275 762	No data
Confederation of Labour „Podkrepa"	500 000	155 000	106 309	91 738	88 329	No data
Total employed in the country	2 266 984	2 119 120	2 079 932	2 466 852	2 218 718	2 277 345
Trade union density	95%	36%	24%	17%	16%	13.7%

Source: Ministry of Labour and Social Policy,
National Statistical Institute, European Industrial Relations Observatory.

Data of census of the criterion for representativeness in 2003, and at the end of 2007-the beginning of 2008. Data for 2012 is obtained from *Bulgaria: Industrial relations profile*, European Industrial Relations Observatory, available at http://www.eurofound.europa.eu/eiro/country/bulgaria_3.htm. Data for 2016 is obtained from World Labour Organization.

What are the main characteristics of trade union members?

The two trade union organizations in the country are frugal in terms of information, regarding their members as socio-demographic profile, characteristics of their labour and work organization, etc. Unfortunately, none of the state institutions in the country can provide such information as well.

Relevant information can only be acquired through empirical social and sociological research. Such a study is the European Social Study (ESS)[2]. ESS gives some idea who are the members and what kind of workers are they; also, what are their social, demographic and labour characteristics.

When asked "Have you ever been a member of a trade union or a similar organization?" in 2010, 5% of all persons surveyed in Bulgaria replied that they were active members of a trade union in the period of the survey. 46.8% have been members of a similar organization in the past, 48.2% have never been members of a trade union or similar organization to that date. Compared to the other countries involved in the project the share of trade union members was lower than in

2 European Social Survey in Bulgaria, fifth wave in 2010, is a national representative survey, in which 2 434 persons over 15 years of age were involved. The whole methodology and empirical data are available at: http://www.europeansocialsurvey.org/.

Bulgaria in countries like Portugal (4.8%), Greece (4.1%), Latvia (4.1%) and Estonia (4.0%). The Largest was the share of trade union members in Denmark (57.6%), Finland (50.1%), Sweden (49.4%), Norway (44.1%).

The share of the current members of trade unions in Bulgaria is increasing in the surveyed people who worked in the study period – 12.9% are members at the time, 29.5% were members in the past, and 57.2% of employees were not members of such organization to date.
There is a lack of interest from young people towards trade union membership. With the increase of the age of the employees increases the share of trade unions members among them. There are no union members aged 18-24, 2.6% of the union members are between 25 and 29 years old, 4.3% are aged 30-34, 14.7% – aged 35-39. In the age group 40-49 years old – the union members are 21.5%. The largest share of union members is in the age group 50-59 years (50%). 6.9% are 60 years old and over.

The work experience of 8.7% of the union members is up to 10 years, 22.6% have a work experience between 10 and 20 years, and the remaining 69.7% have a work experience over 20 years.

Syndicalism is more prevalent among women – 14.4% of the surveyed female workers are members of a union at the moment, 31.4% have been a member in the past, and 54.2% have never been members. While amongst male workers, 11.2% of them are members at the moment, 27.8% have been in the past, and 61.0% – have never been members.

Of the currently studied union members, 58.6% are women, and the remaining 41.4% are men. By level of education, 1.7% of the studied union members have completed primary education, 41.4% are with secondary education, and the remaining 56.1% are university graduates. Over one third (41.4%) of the union members describe the place where they live as a big city, roughly more so (38.8%) live in small towns, and every fourth (19.8%) lives in a village.

The labour market in Bulgaria is continuously changing. Employment on a fixed-term contract, hourly employment or work without a contract (employed in the informal and even gray economy) is growing. These workers are much more difficult to organize. Some of the employees are self-employed or working in a managerial contract and almost certainly do not participate in trade unions. The tendency to move towards more flexible forms of employment also has a negative impact on the number of trade unions membership. Among those who are employed on a permanent employment contract, current members of a trade union are 16% against 4.2% of those on a fixed-term employment contract. At the same time, 94% of the union members are employed on a permanent employment contract, 3.4% were employed on a fixed-term employment contract.

Almost one fifth of the union members (19.5%) work in micro-companies with up to 10 employees, 22.1% of them are employed by companies with between 10 and 24 employees, almost every third employee (29.2%) has between 25 and 99 co-workers, 18.6% – in a large company with between 100-499 employees and 10.6% in companies with over 500 employees.
About half (49.1%) of the surveyed union members work in the public sector, 19.8% - in the state-owned enterprise and equally (19.0%) in a private company, only 6.9% work for the central or local governments.

The assertions of some analysts, that the type of ownership of the economic organization has an impact on trade union activity are now confirmed. Moreover, with the transformation of the

country's economy from state to private property, trade unions could not attract enough confidence in their activities by the new owners. The share of the private sector in total employment is around 75% of all employees. Syndicalism is several times higher in the public service sector.

The reasons for this are, in the first place, that the vast majority of the private companies are small and medium-sized enterprises, in which it is harder to organize people in trade unions. Secondly, the workers in the private sector themselves avoid participating in such organizations. Finally, it is much more difficult to organize people in companies that are newly established or with small history and lack of traditions trade unions.

The vast majority of trade union members (65%) say that there are regular meetings between employers' and employees' representatives, who are discussing working conditions and ways of working. Their assessment of the impact of trade unions on decisions about working conditions and the way of working is relatively negative. Trade unions have little or no influence, according to 40.5% of the members and have some influence, according to 41.4%. Only 4.3% of the current trade union members believe that unions have rather considerable influence and 9.5% – considerable influence.

The recognition of trade unions as "defenders" of violated labour rights in comparison with the court, local officials, a political party or others is relatively high. 14% of the workers would seek trade unions to gain real protection. In the second place the workers would turn to their relatives – 10%, and the court – 9%. 43% of respondent would have to cope with it by themselves when they are in breach of labour rights. Also 17% feel helpless and think that no one can help them in such situation[3].

3. CHALLENGES THAT TRADE UNIONS FACE

Trade unions are generally challenged to deal with the various changes that occur in the nature, content, organization of labour, employment and division of labour, different labour, economic, cultural and social relations as a whole.

The globalization of the economy generates a number of processes, such as: increased the mobility of capital and services, bigger role of multinational companies in national economies, emergence of new business forms (export of operations and processes, use of subcontractors, relocation of enterprises, etc.), ease of exchange of technologies and the process of innovation, emergence of new, more flexible forms of employment, work organization and working time, including a number of atypical employment, such as temporary work, part-time work, tele-working, freelancing i.e. all such forms that give extra benefits to the capital and take away from hired workers.

The role of the "information society" is growing. Services take the predominant role in the economic structures. The number and relative share of employees in the new industries, in services, in small and micro enterprises grows. There are significant changes in the composition of the workforce, stratification of the professional-qualification composition and strong differentiation of statuses and working conditions between the employees in the same industry, in the same enterprise. Changes in the composition of the workforce are triggered by demographic changes,

[3] Data is form a national representative survey of ASSA-M, carried out in December 2010. The answers are based on working respondents.

which trigger processes such as: the mass influx of women into the labour market; increasing the number of older workers; the difficult labour adaptation of young people; the presence of a larger number of foreign workers and immigrants.

As a result of the intensive free movement of people, the established national culture is mixed with new imported cultural models, which creates cultural pluralism and multicultural environment. The values of employed workers are also changing. They fear that choosing to participate in a trade union might mean to be protected or to be fired. Naturally all these factors lead to inevitable changes in attitudes and practices of industrial relationships and social partnership.

REFERENCES

[1] Annual Report on Collective Labour Agreements and Collective Labour Disputes in Republic of Bulgaria, National Institute of Conciliation and Arbitration, Sofia, 2018.

MAKE OR BUY DECISIONS IN FACILITY MANAGEMENT: OPPORTUNITIES TO USE DATA ENVELPOMENT ANALYSIS (DEA)

Georgi Zabunov[1]

DOI: https://doi.org/10.31410/EMAN.2019.657

Abstract: *Since modern buildings are complex facilities, the facility managers have to outsource many activities to other specialized companies. In this context, decisions to make or to buy become of key importance to facility management companies. This present paper proposes an approach for making a reasonable decision to make or to buy based on the use of data envelopment analysis (DEA).*

Keywords: *Facility management, make or buy decisions, data envelopment analysis*

1. INTRODUCTION

According to the official website of the International Facility Management Association (IFMA) Facility Management is a multi-discipline profession to ensure functionality, comfort, safety and efficiency of the built environment through the integration of people, places, processes and technologies. For its part, ISO Standard ISO 41011: 2017 (ISO) defines Facility Management as an organizational function that integrates people, places and processes within the built environment to improve the quality of life of people and the productivity of the core business" (point 3.1.1). Again, the term „built environment" is defined as „a set of buildings, outdoor spaces (green areas), infrastructure and other facilities in a given area" (3.2.3).

With these comprehensive definitions, it is difficult to work, so it is convenient for practical purposes to define management primarily through its objective - improving the quality of life of people and improving the productivity of the organization's core processes. As you can see, this is an activity that does not generate revenue directly, but only through its results it improves the flow of basic business processes. Therefore, improving the efficiency of Facility Management will be sought to improve the cost-to-target (result) ratio rather than cost-revenue. The notion of „efficiency" is also not always clearly defined, so it is good to use these international standards. ISO 9000: 2005 gives the content of the terms „efficiency" and „effectiveness". According to this document, the effectiveness is the extent to which the planned activities are realized and the planned results are achieved (3.2.14), while efficiency is the relationship between the achieved result and the resources used (3.2.15). Considering that the objectives of Facility Management can be extremely varied (e.g. favorable temperature, air composition, degree of illumination, background noise level, etc.), it will be virtually impossible to formulate performance indicators. It will be necessary to use comparative effectiveness (different effectiveness variants) with minimization of input resources. Since the objects managed by Facility Management (parts of buildings, buildings, building complexes) are clearly differentiated, Data Envelopment Analysis (DEA) can successfully be used to investigate efficiency and comparative effectiveness.

This, in turn, can direct the company's management to produce or purchase certain services and / or products.

[1] University of National and World Economy, Business Faculty, Real Estate Department, 1700 Sofia, Bulgaria, Student Town, UNWE

2. DEA AND MAKE-OR-BUY DECISION

The make-or-buy decisions are of strategic importance for a company. [1] A lot of research has been done in order to examine the issue. Our aim here is to present an indicator which shows that the outsourcing of certain activities should be considered seriously. However, in this process, the specific nature of facility management as a business should be borne in mind. Let us remember that in essence facility management involves the separation and control of all support processes within an organization by one center. The economic logic behind this is as follows:

1. As a rule, these processes take place in built environment and real estate includes a great part of company assets. Neglecting them can lead to problems with return on investment because of unjustifiably high costs.
2. The centralization of all support processes allows their optimization together with the optimization of core processes as well as their integration in the latter to a greater extent. The alternative involves different structural units that communicate badly with each other. In general, core processes and core competencies are in the focus of top management attention whereas support are neglected. At the same time, due to the direct connection of supporting processes with real estate, they incur a great amount of costs. A lot of these costs are not directly related to the company main activity. Therefore, if the support processes are managed for themselves and despite its key competencies, a company will spend money unjustifiably.

Here comes the question about core competencies and core processes in facility management. Until recently, the focus was on the technical elements of buildings and built environment. Nowadays, however, this focus is shifting increasingly to the people living in the environment: customers, employees, managers, visitors, etc. In other words, modern facility management provides certain facilities to people and creates prerequisites for the implementation of core processes at the optimal (in this case minimal) price. This requires the regulation of the main characteristics of the environment as well as a strict cost control.

Data envelopment analysis is a technique based on linear programming to measure the relative performance of a set of defined organizational units. Applied in the presence of a large number of input and output variables, which makes direct comparisons complex. [2] Classical performance measurement as the ratio between input and output variables is often inadequate due to the presence of multiple input and output measurers corresponding to different resources, activities, environmental factors, and so on. An appropriate illustration of such a situation is a large retailing organization with multiple warehouses. The delivery rate for all warehouses needs to be optimized, but cost levels are not necessarily the same in all sites. It is possible that the value of the stock is different in the different stores as well as the cost of delivery and storage. The units being compared are the same as the structure of costs and results, but the specific quantities per unit of resource and / or result may vary a lot.

However, all warehouses will strive to ensure a good level of service with the smallest possible amount of stored stocks and a low level of storage costs.

The example illustrated very well illustrates the complexity of the situation, but it should be noted that in the area of Facility Management things are not much different. In any building or part of a building that is run by the organization (e.g. a floor), there is a desire to have more space suitable for rent, while at the same time reducing the unusable areas. They are an infrastructure

for leased areas - they provide easy access, mobility convenience, and so on. At the same time, the cost of providing a good climate, cleaning, security and access, etc., can vary greatly from one building to another. This makes the task of determining the cost and / or resource efficiency of different buildings or parts of them very complex. The subjects considered in the Data Envelopment Analysis are called Decision Making Units (DMUs) [3]. The complexity of the task emerges immediately if we have, for example, over 10 decision-making units (DMUs) and each one works with two input and two output variables. In this case, the input quantities should be the total amount of the monthly costs in Euro and the number of man-hours, and the output shall be the level of rent achieved by property managers and the air purity coefficient. The latter is as higher as cleaner is the air in the room in accordance with the accepted criteria. The aim is to minimize input quantities and maximize output (with the proviso that this is not possible at the same time, of course). The task can be complicated even more because, in principle, neither the number of the DMUs nor the number of inputs nor the number of output quantities is limited. Such are the cases where DEA is appropriate.

Relative efficiency is measured to solve the problem with multiple difficult to measure inputs and outputs. A hypothetically effective DMU is being developed to be used as a tool for comparison with potentially ineffective DMUs [4]. Traditionally, comparative efficiency is measured using the formula:

Efficiency = (Weighted Amount of Outputs) / (Weighted Amount of Inputs)

Taking into account that in our case the rent level is determined by factors external to the organization (the market situation) and the purity of the air cannot improve to infinity, we assume that the output quantities are set, and we will optimize the inputs, i.e., we will minimize them. In this case, it is more accurate to talk about comparative effectiveness.

In practice, the following terms have been adopted:

1. For the DMU number:

DMUj, $j = 1, 2, \ldots, n$.

2. For inputs:

x_{ij}, $i = 1, 2, \ldots, m$. In this case m is the number of inputs.
For example, x_{35} means the third input of the fifth DMU.

3. For Outputs:

y_{rj}, $r = 1, 2, \ldots, s$. In the case s is the number of outgoing dimensions (outs).
For example, y_{46} means the fourth output of the sixth DMU.

The values of all the variables mentioned are known in advance, and the models for comparative effectiveness and efficiency are described. The labels are by [5].

One of the main problems is to determine the weights weighing the input and output quantities. Since we are looking for a suitable convex combination of weights, the first and most important condition is that the sum of these weights is equal to one. For each DMU, we need to determine

weights that minimize its inputs (Inputs). This means we have to run the model as many times as the DMU count. The general look of the model we will use will look like this:

$$\theta^* = \min \tag{1}$$

subject to the following limitations:

$$\sum_{j=1}^{n} \lambda_j x_{ij} \leq \theta x_{io}, \ i = 1, 2, \dots, m; \tag{2}$$

$$\sum_{j=1}^{n} \lambda_j y_{rj} \geq y_{ro}, \ r = 1,2, \dots, s; \tag{3}$$

$$\sum_{j=1}^{n} \lambda_j = 1 \tag{4}$$

$$\lambda_j \geq 0, \ j = 1,2, \dots, n. \tag{5}$$

Here γ_j is the aggregation of the unknown weights (j = 1,2,…, n) corresponding to each DMUj.

The convex combination requires the sum of all n lambda numbers to be equal to one.

The right side is one of the DMU counts to be assessed.

In the case of the shortened recording of the model it seems at first sight that it has three restrictive conditions. In fact, the number of restrictive conditions is m + s + 1, since the first restrictive condition is essentially m number of restrictive conditions for each input parameter. Accordingly, the second restrictive condition is in fact a restrictive condition, such as the number of outgoing quantities.

The model can also be saved as follows:

$$\theta^* = \min \theta \tag{6}$$

subject to the following limitations:

$$\lambda_1 x_{i1} + \lambda_2 x_{i2} + \dots + \lambda_o x_{io} + \dots + \lambda_n x_{in} \leq \theta x_{io} \quad i = 1, 2, \dots, m; \tag{7}$$

$$\lambda_1 y_{r1} + \lambda_2 y_{r2} + \dots + \lambda_o y_{ro} + \dots + \lambda_n y_{rn} \geq y_{ro} \quad r = 1, 2, \dots, s; \tag{8}$$

$$\lambda_1 + \lambda_2 + \dots + \lambda_o + \dots + \lambda_n = 1 \tag{9}$$

$$\lambda_j \geq 0 \quad j = 1, 2, \dots, n. \tag{10}$$

Accordingly, in its most developed form, the model will look like this:

$$\theta^* = \min \theta \tag{11}$$

subject to the following limitations:

$$\lambda_1 x_{11} + \lambda_2 x_{12} + \dots + \lambda_o x_{1o} + \dots + \lambda_n x_{1n} \leq \theta x_{1o} \text{ (first input)} \tag{12}$$

$$\lambda_1 x_{21} + \lambda_2 x_{22} + \cdots + \lambda_o x_{2o} + \cdots + \lambda_n x_{2n} \leq \theta x_{2o} \text{ (second input)} \quad (13)$$

...

$$\lambda_1 x_{m1} + \lambda_2 x_{m2} + \cdots + \lambda_o x_{mo} + \cdots + \lambda_n x_{mn} \leq \theta x_{mo} \text{ (m-th input, the last)} \quad (14)$$

$$\lambda_1 y_{11} + \lambda_2 y_{12} + \cdots + \lambda_o y_{1o} + \cdots + \lambda_n y_{1n} \geq y_{1o} \text{ (first output)} \quad (15)$$

$$\lambda_1 y_{21} + \lambda_2 y_{22} + \cdots + \lambda_o Y_{2o} + \cdots + \lambda_n y_{2n} \geq y_{2o} \text{ (second output)} \quad (16)$$

...

$$\lambda_1 y_{s1} + \lambda_2 y_{s2} + \cdots + \lambda_o y_{so} + \cdots + \lambda_n y_{sn} \geq y_{so} \text{ (s-th output, the last)} \quad (17)$$

$$\lambda_1 + \lambda_2 + \cdots + \lambda_o + \cdots + \lambda_n = 1 \quad (18)$$

$$\lambda_j \geq 0 \qquad j = 1, 2, \ldots, n. \quad (19)$$

θ is the desired variable and represents the effectiveness of DMU_o - one of the DMUs we are currently assessing. The right side represents the assessed DMU (one of n). The left side is the possible convex combinations of observed values of incoming and outgoing dimensions (inputs and outputs).

Competitiveness is seen as the ability of a company to disclose, create, maintain, and exploit competitive advantages. On the other hand, competitive advantages are additional value for customers, for which the company makes lower costs than its competitors. The disclosure of the company's relatively efficient and effective DMU will allow positive management experience to be applied wherever the results are not yet at the required level. The expected result is to increase the overall competitiveness of the company [6].

Once we determine which DMUs do not work effectively, we need to analyze the business processes in them. This analysis is carried out with the idea of deciding whether certain business processes are better suited to be executed by the company's staff or outsourced. Thus, performance analysis through DEA can be used as the first step in determining which DMUs need business process analysis and then a decision to produce or buy.

3. NUMERICAL EXAMPLE

The examined dependencies could be illustrated by a suitable numerical example. Before we proceed, we need to make a clarification. There are two main types of efficiency - allocative and technical. The allocative is related to the prices of the inputs and the possibilities of replacing an Input with another. In turn, the technical is concerned with achieving optimal results with limited resources [7]. In our case, we cannot analyze the prices of the Inputs, so we use the concept of technical efficiency. Calculations and visualizations were performed with the package "Benchmarking" in R.

The rented area of the first four buildings is between four and six thousand square meters, for buildings with numbers five, six and seven is between nine thousand and eleven thousand square meters, and for buildings with numbers seven, eight and nine the rented area is between forty-eight and fifty thousand square meters.

The indicators we are looking at are as follows: Input 1 - Staff costs; Input 2 - Expenditure on external services; Output - revenue from rented areas. The initial data is given in Table 1.

Table 1: Initial Data

DMU	*INPUT 1 (x1)*	*INPUT 2 (x2)*	*OUTPUT (y)*
Building01	1400	650	2450
Building02	1400	700	2600
Building03	1400	655	2450
Building04	1400	720	3000
Building05	2750	1200	4800
Building06	2750	1300	5500
Building07	2750	1250	5000
Building08	4900	5600	25000
Building09	4900	5300	21000
Building10	4900	5400	23000

Table 2: Optimization results (Technical Efficiency)

DMU	*EFFICIENCY RATIO*
b1	1
b2	1
b3	1
b4	1
b5	0,932727273
b6	0,98041958
b7	0,930909091
b8	1
b9	0,889193825
b10	0,954882155

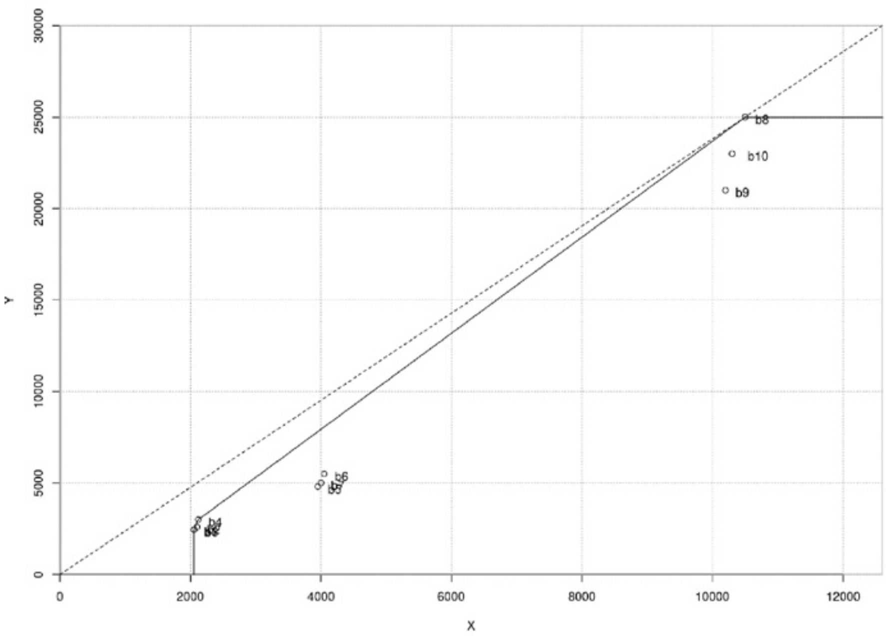


Figure 1: Efficiency frontier (Variable Return of Scale)

The optimization results are presented in Table 2. It is clear that five DMUs work optimally, and the other five do not. In addition, effective DMUs are among the buildings with the largest and smallest rentable area, and the group of buildings with average rental space are ineffective.

The visualization of the optimization process is presented in Figure 1. Due to the large difference in the rented area for different buildings, a variable return of scale procedure is used.

4. CONCLUSION

The visualization of the results clearly shows how the analyzed objects are grouped in three groups according to the amount of the rented area. The group of objects with rented area between nine and eleven thousand square meters is farthest from the efficiency frontier. These are Building 5, Building 6 and Building 7 – DMUs b5, b6 and b7. Additionally, visualization allows us to compare the performance of objects under consideration with the help of vectors. By drawing a vector that starts from the beginning of the coordinate system and ends at the point indicating the corresponding DMU, we would have a vector visualization of the effectiveness of this DMU. The orthogonal projection of the vector on the ordinate axis will correspond to the absolute volume of the output. Therefore, the larger (i.e., closer to 90 degrees) the angle between the vector and the ordinate axis, the more effective the DMU will be. These considerations confirm the fact that DMUs b5, b6 and b7 are the most ineffective.

Estimated values for DMU performance allow us to formulate certain hypotheses. Business processes in DMUs b5, b6 and b7 are most likely inadequate. The balance between the activities carried out by own staff and the outsourced activities is violated. Business processes in the listed DMDs need to be reviewed and new make-or-buy decisions have to be made.

REFERENCES

[1] Marshall, D., Ambrose, E., McIvor, R., and Lamming, R. (2015) *Self-interest or the Greater Good: How Political and Rational Dynamics Influence the Outsourcing process,* International Journal of Operations and Production Management, 35(4), pp. 547–576.

[2] Banker, R. D., Morey, R. (1986) *Efficiency analysis for exogenously fixed inputs and outputs,* Operations Research, 34, pp. 513–521.

[3] Farrell M.J. and Fieldhouse M. (1962) *Estimating efficient production functions under increasing returns to scale,* J.R. Statis. Soc. Series A 125, pp. 252-267.

[4] Wade D. Cook, Joe Zhu, (2013) *Data Envelopment Analysis: Balanced Benchmarking,* Create Space Independent Publishing Platform.

[5] Du, J., Liang, L., Chen, Y., and Bi, G. B. (2010) *DEA-based production planning,* Omega, 38(1), pp. 105–112.

[6] Charnes, A., Cooper, W. W., and Rhodes, E. (1978) *Measuring the efficiency of decision making units,* European journal of operational research, 2(6), pp. 429–444.

[7] Peter Bogetoft, Lars Otto, (2011) *Benchmarking with DEA, SFA, and R,* Springer Science, 2011, pp. 36-38.

WORK REHABILITATION OF THE UNEMPLOYED IN SELECTED EU COUNTRIES - OVERVIEW STUDY

Alena Kajanová[1]

DOI: https://doi.org/10.31410/EMAN.2019.665

Abstract: *Currently, there are large differences in unemployment among EU countries; Czech Republic (3.5%) and Germany (3.6%) have dealt with the problem very well in recent years, which is confirmed by the fact that their unemployment rates are the lowest across the EU. Countries like Finland (8.7%) and France (9.5%) are with their unemployment rate in the middle of the unemployment rate ranking, and Greece (21.0%) is among the countries with the worst unemployment rate (Eurostat, 2017).*

When working with unemployed people, it is very important to coordinate different approaches, as it is a problem of economics, but also psycho-sociology (Jurečka et al., 2013). In this study, we focus on work rehabilitation, which is one of the components of coordinated rehabilitation and in which we mainly use counselling, job mediation, and preparation for future occupations.

The aim of this overview study is to define the work rehabilitation of unemployed people both in the Czech Republic and in selected EU countries. The comparison of different methods of work rehabilitation may be useful to improve the situation of the unemployed and to increase the employment rates in many countries. This study is based on sources from professional literature, websites and professional articles from databases SCOPUS, Ebsco and Google ScholarPro. The research method is textual analysis of documents.

Keywords: *Unemployment, work rehabilitation, active unemployment policy.*

1. INTRODUCTION

An unemployed person is, by the International Labor Organization (ILO), defined as someone older than 15 years old, actively searching for a job and ready to enter a job within 14 days.

Krebs (2015) characterizes unemployment as a result of three generally valid aspects: organization and management of the employment of people in the country, the reflection of non-personal market forces that are controlled by the human factor, and the consequence of certain abilities, dispositions and attitudes of an individual. Unemployment is one of the most significant labor market failures (Keřkovský, 2004), and many countries must deal with this issue. The Czech Republic, however, is one of the countries with lowest number of unemployed people, which is confirmed by the fact that the unemployment rate in November 2017 has fallen to its historical minimum of 3.5% (Patria, 2017). The countries with highest unemployment rates in the EU are Spain and Greece, and the lowest unemployment rates are in Czech Republic, Germany and Malta.

This review article deals with work rehabilitation, which is one of the components of coordinated rehabilitation, and it is a continuous activity aimed at acquiring and maintaining suitable employment for a disabled person. It mainly includes counselling on career choice, choice of employment or other form of generating income. It also includes a training for future employment, for medi-

[1] Department of Humanities, The Institute of Technology and Business in České Budějovice, Okružní 517/10, České Budějovice, 370 01, Czech Republic

ation and change of employment - both theoretical and practical (MPSV, © 2016 - 2017a). Forms of work rehabilitation include counselling, job mediation, preparation for future occupations, specialized qualification courses, preparation for work and other types of activities according to the needs of the participant (MPSV, © 2016 - 2017a). The following and additional parts of work rehabilitation are different educational courses and projects of the European Social Fund, which include the *OP Zaměstnanost 2014-2020* programme, current in this area (ESF, 2016).

2. LITERATURE REVIEW

Method

This overview article is based on sources from professional literature, websites and professional articles from databases SCOPUS, Ebsco and Google ScholarPro. This data helped to form the overview study, which maps the work rehabilitation of unemployed people in Czech Republic, Germany, Finland, France and Greece. These countries were selected based on the unemployment rate, which is the lowest in Czech Republic and Germany, France and Finland are in the middle and the highest unemployment rate occurs in Greece. The aim was to confirm whether the tools of work rehabilitation cohere with the unemployment rate.

The topic was searched for by using these phrases: „work rehabilitation of the unemployed", „state employment policy", and each keyword was connected with the selected country. In the years 2012-2018, for example, the Ebsco database showed 315 results, when entering the phrase „state employment policy", Google Scholar showed 17,000 results to keywords such as „active employment policy in the Czech Republic", of which only those related to active employment policy were used. A comprehensive study was prepared with the help of documents published between 2004 and 2018, but most of the literature is not older than 5 years.

3. ACTIVE EMPLOYMENT POLICY IN THE CZECH REPUBLIC

The Ministry of Labor and Social Affairs of the Czech Republic implements the state employment policy, which seeks to achieve a balance between supply and demand of labor. It can be generally divided into passive and active employment policy (MPSV, 2012).

Active policy according to Act No. 435/2004 Coll., on employment, is a set of measures that aim to achieve the highest employment rate. Active employment policy tools in Czech Republic include retraining, investment incentives, community work, socially meaningful jobs, bridging allowance, contribution for incorporation, contribution for the transition to a new entrepreneurial program, counselling, support of the employment of disabled people, programs which deal with employment (MPSV, 2012).

The main tasks under this policy are to create new jobs, to maximize employee stabilization, which minimizes dismissal, and to provide vocational education (Lymareva, Talanova, 2015).

The Ministry of Labor and Social Affairs of the Czech Republic introduces tools for individual work with the unemployed, to help those who find it difficult to find a job for a variety of reasons. These tools include a shared job, outplacement, support of short-term jobs, and individual coaching and occasional registered work (MPSV, 2013).

4. WORK REHABILITATION IN THE CZECH REPUBLIC

As a part of the work rehabilitation of the unemployed, Czech Republic widely uses retraining, which, according to the Ministry of Labor and Social Affairs (2016), allows the candidates to acquire a new qualification or to strengthen their existing skills, which will help to maintain an existing job. In 2017, retraining courses were mainly focused on administration, economics and accounting, information technology, trade, marketing and advertising, warehousing, security, engineering, welding, construction, wood processing, gastronomy and food industry (MPSV, 2017).

Another possible way of work rehabilitation is via Job Club, a counselling program whose main goal is to motivate and activate its members to participate in the labor market. It is focused on orientation on the labor market and teaching job search techniques. Job Club takes place in groups of 8-10 participants in the form of repeated meetings. Job Club is currently targeted at job seekers who want to improve their self-expression and want to strengthen their self-confidence and learn how to address stressful situations that are linked to unemployment. The members are recommended by a mediator from the Employment Department, based on a request. Within Job Club, clients are taught stress management, assertiveness techniques and work-related orientation. They also prepare for job interviews or learn support and relaxation methods. Job Club also provides financial consulting (dealing with debt, repayment schedule), job agencies' contacts, offers advertised in the press, current lists of vacancies registered by the Labor Office, as well as retraining courses and ESF projects (MPSV, © 2002 - 2015b).

Equally important tool of work rehabilitation is professional counselling, which, according to Plesník and Šobáňová (2014), is divided into three phases. The first phase focuses on the client, in particular on his past work experience, education, skills, interests and needs. In the second phase, the labor market, the individual professions and the situation in the region are mapped. Finally, in the third phase, the first and the second phases merge in creating and implementing a specific plan to obtain a new job.

Counselling services are provided by both non-profit organizations and professional counsellors from the Labor Office, and their goal is to guide clients to make independent decisions based on the information provided, to lead clients to deal with problems and to lead them to unassisted final decision (MPSV, 2017a).

The counselling takes place during individual consultations and group programs, and is aimed to solve specific personal, social and health problems that can prevent the client from finding a suitable job. The Ministry of Labor and Social Affairs (2018) also describes individual counselling that offers assistance to clients in difficult life situations, to clients who consider retraining, or need help with job selection and change, etc.

5. WORK REHABILITATION IN GERMANY

Germany's active employment policy that helps rehabilitate the unemployed include counselling and job mediation, support of further professional education, employment-related measures, support of employment, and support of the employment of disabled people (Bernhard et al., 2008). Counselling and employment mediation fall under the auspices of the Federal Employment Agency, which aims to optimize and accelerate the process of job placement and to provide information on the labor market (Keller, 2006). The so-called employment mediation voucher

includes the provision of a personal counsellor, who conducts deep interviews with the unemployed, by which they seek to identify and overcome or completely remove barriers to enter the labor market. Together, the client and the consultant draw up an individual plan that is binding for both parties. This voucher amounts to € 2,000 and is valid for 3 months (ANBA, 2012).

Another equally important part of counselling and job mediation is activation and occupational integration, which allows activation and orientation on the labor market, access to private employment agencies, and support of starting entrepreneurs (NVF, © 2011).

6. WORK REHABILITATION IN FRANCE

The unemployment rate in France decreased under 10% in the first quarter of 2017, the lowest level in the last five years (ČTK, 2017). This is caused, among other things, by an active unemployment policy tools, including professional education.

The most frequently used measures to increase or acquire a new qualification include professional internships (Stages de formation) and training agreements (Formation conventionée), which provide the applicant with the means to obtain a driver's license, new language skills, or technical skills, to increase their qualifications. During this training the applicant receives a job search and training allowance (AFC, © 2018).

The most common tool to create new jobs in the private sector is to support employment contracts that are primarily intended for those disadvantaged on the labor market (Caliendo and Schmidl, 2015).

In 2016, France spent two billion euros on creating new jobs (ČTK, 2016). Other tools include, for example, direct job creation, protected jobs, or support of entrepreneurs. These tools are similar to those in the Czech Republic.

Another important element are Career Rehabilitation Centers (CRP), which are health and social services that offer qualifying training to disabled people. The aim of these centers is to train or retrain for means of integration or professional reintegration. These training courses are covered by health insurance (action-sociale, © 2009-2017).

7. WORK REHABILITATION IN FINLAND

In Finland, the high level of employment is emphasized as a means of preventing social problems, poverty and social exclusion (Jokivuori, 2009). Access to employment is, as in other Scandinavian countries, very friendly to women, which helps Finland to have constantly low long-term unemployment rate and higher economic activity than the European average (Kotrusová, Kux, 2006).

The ability to obtain information on vacancies from websites is relatively well advanced, which is confirmed by the fact that nearly 100% of jobs are on the internet (Vošahlíková, 2010). The difference from the Czech Republic is the possibility to contact the Employment Department even before the actual loss of employment, and also the possibility to take the time off to find a new job (Jokivuori, 2009).

In Finland, there are so-called Job centers, which operate on a voluntary basis. They mainly provide information on the possibilities of professional education, job and study opportunities, internet services, etc. They provide courses, seminars and counselling in different areas (creating a CV, internet usage, preparation for interview), and also organize recruiting events (Vošahlíková, 2010).

Another tool to work with the unemployed are the Labor Force Service Centers, which provide assistance to people who need special help on their way back to the labor market. The most common problems that hinder entry to the labor market are lack of work experience, housing problems, relationship problems, poor financial situation, health problems, problems with daytime rhythm, addictions, etc. In these centers, the clients are taken care of by professionals, who offer complex counselling, which means not only addressing the job issue but other issues as well. Each client has a case manager with whom they create an individual plan (Vošahlíková, 2010).

8. WORK REHABILITATION IN GREECE

In Greece, the work rehabilitation falls under the Organization for Employment of Workers (OAED), which is based on three pillars: employment support, unemployment insurance, and social protection, professional education and training. This organization directs the active labor market policy, which aims to stop unemployment, promote employment and professionally train both the unemployed and the employed citizens (OAED, © 2012).

Specific employment policy measures include employment programs, training programs and counselling (OAED, © 2012).

There are integrated learning programs that help both employed and unemployed people in adapting quickly and more effectively to the labor market. These programs include training and retraining of both employed and unemployed people, a business development program, complex counselling and training programs, gaining new work skills, supporting new forms of education (e.g. using internet and other information and communication technologies), etc. (OAED, 2012a).

Counselling services in Greece include counselling and career guidance, consultation on job search, and advice on business initiatives (OAED, © 2012b).

In this country, there is a Lifelong Career Development Portal (EOPPEP) designed for adults of all ages, which provides innovative information services on professional development and mobility (EOPPEP, 2017).

9. CONCLUSION

This overview study shows the tools of work rehabilitation that are necessary for working with the unemployed. It also shows the approach to the unemployed in selected EU countries, and how active employment policy is reflected in the overall unemployment rate of selected EU countries.

Gonçalves et al. (2017) states that there are four main active employment policy programs, the most successful of which is mentoring. These programs include counselling, which is mainly provided in the Czech Republic, in the framework of the Counselling Center for Employment,

which shows the lowest unemployment rate of the selected states. It is also used in Germany, which has a low unemployment rate as well, by applying the Employment Mediation Voucher and Activation and Occupational Inclusion. Counselling is also provided by Greece; however, Greece also has the highest unemployment rate of the selected states, which can be explained by the fact that it has only begun to deal with unemployment after the financial crisis in 2009. It is very important to note that the main tool for fighting unemployment is education.

Table 1 – Overview of tools of work rehabilitation in concrete countries

Country	Tools of work rehabilitation
Czech Republic	Retraining Job Club Counselling and mediation of suitable job Support of employment of disabled people Protected jobs
Germany	Support of additional education Employment related measures Support of employment of disabled people Employment supporting measures
France	Professional education Supported employment contracts Direct creation of jobs Support of starting entrepreneurs Protected jobs Professional rehabilitation centers
Finland	Job centers Service centers for workforce
Greece	Training programs Employment programs Counselling Integrated educational programs Consultations on search for employment Lifelong Career Development Portal

Source: Author

REFERENCES

[1] AFC, ©2018. L'Action de Formation Conventionnée par Pôle emploi. *pole-emploi.fr* [online]. © 2018 [cit. 2018-01-19.]. Available at: https://www.pole-emploi.fr/ candidat/l-action-de-formation-conventionnee-par-pole-emploi-afc--@/article.jspz?id=60683

[2] AS, ©2009-2017. Définition. *Action-sociale.org* [online]. © 2009-2017 [cit. 2018-01-19.]. Available at: http://annuaire.action-sociale.org/etablissements/adultes-handicapes/centre-reeducation-professionnelle-249.html

[3] ANBA, 2012. Arbeitsmarkt 2012. *arbeitsagentur.de* [online]. 2012 [cit. 2018-01-19.]. Available at: https://statistik.arbeitsagentur.de/Statistikdaten/Detail/201212/ama/heft-arbeitsmarkt/ arbeitsmarkt-d-0-pdf.pdf

[4] BERNHARD, S. et al. 2008. Aktive Arbeitsmarktpolitik in Deutschland und ihre Wirkungen. *iab.de* [online]. 2012 [cit. 2018-01-19.]. Available at: http://doku.iab.de/ forschungsbericht/ 2008/fb0208.pdf

[5] CALERNDO, M. a SCHMIDL, R., 2015. Youth unemployment and active labor market policies in Europe. *Googlescholar.cz* [databáze]. 2015 [cit. 2018-01-19.]. Available at: https://izajolp.springeropen.com/articles/10.1186/s40173-016-0057-x

[6] ČTK, 2016. Francie má na tvorbu nových pracovních míst dvě miliardy eur. *denik.cz* [online]. 18.1.2016 [cit. 2018-01-19.]. Available at: https://www.denik.cz/ekonomika/ francie-da-na-tvorbu-novych-pracovnich-mist-dve-miliardy-eur-20160118.html

[7] ČTK, 2017. Nezaměstnanost ve Francii klesla v prvním čtvrtletí pod deset procent. *investicniweb.cz* [online]. 18.5.2017 [cit. 2018-01-19.]. Available at: http://www.investicniweb.cz/news-francie-nezamestnanost-1q-2017/

[8] EOPPEP, 2017. Career guidance, employment support & other information services in Greece. *Eoppep.gr* [online]. © 2017 [cit. 2018-01-19.]. Available at: http://www.eoppep.gr/index.php/en/counseling-a-vocational-guidance-en/euroguidance-national-centre-1

[9] ESF, 2016. Evropský sociální fond v ČR. *esfcr.cz* [online]. 2016 [cit. 2018-01-19.]. Available at: https://www.esfcr.cz/detail-clanku/-/asset_publisher/ BBFAoaudKGfE /content/evropsky-socialni-fond-v-cr

[10] EUROSTAT, 2017. **Česko má stále nejnižší nezaměstnanost v EU. Projděte si nové porovnání.** *aktualne.cz* [online]. 31. 1. 2017 [cit. 2018-01-19.]. Available at: https://zpravy.aktualne.cz/ekonomika/cesko-ma-stale-nejnizsi-nezamestnanost-v-eu-projdete-si-nove/r~91b5a866e7b611e6a8cc002590604f2e/

[11] JOKIVUORI, P. 2009. Flexikurita a kolektivní pracovní vztahy. *nosppp.cz* [online]. 2009 [cit. 2018-01-19.]. Available at: https://www.nosppp.cz/ files/ Flexikurita %20 ve%20Finsku.doc

[12] JUREČKA, V. et al., 2013. *Makroekonomie.* 2. vyd. Praha: Grada Publishing a. s., 352 s. ISBN 978-80-247-4386-8.

[13] KELLER, B., 2006. Arbeitsmarktpolitik**.** *gabler.de* [online]. 2006 [cit. 2018-01-19.]. Available at: http://wirtschaftslexikon.gabler.de/Archiv/974/arbeitsmarktpolitik-v13.html

[14] KEŘKOVSKÝ, M., 2004. *Ekonomie pro strategické řízení: teorie pro praxi / Miloslav Keřkovský.* 1. vyd. Praha: C. B. Beck, s. ISBN 80-7179-885-1.

[15] KORTUSOVÁ, M. a KUX, J., 2006. Analýza politik zaměstnanosti členských zemí Evropské unie v závislosti na jejich předsednictví se zřetelem na aktualizaci principů politiky zaměstnanosti České republiky. *vupsv.cz* [online]. 2006 [cit. 2018-01-19.]. Available at: http://praha.vupsv.cz/Fulltext/vz_213.pdf

[16] KREBS, V. et al., 2015. *Sociální politika.* 6. vyd. Wolters Kluwer. ISBN 978-80-7478-921-2.

[17] LYMAREVA, O. a TALANOVA, A., 2015. The features of the state policy in the field of employment management in countries with advanced industrial economy. *ebsco.com* [databáze]. 2015 [cit. 2018-01-19.]. Available at: http://eds.b.ebscohost.com/ eds/detail/detail?vid =2&sid=5dd965df-d260-4ae4-97b7-7870cf3bf1b6%40pdc-v sessmgr01&bdata=-Jmxhbmc9Y3Mmc2l0ZT1lZHMtbGl2ZQ%3d%3d#db=edb&AN=102265255

[18] MPSV ČR, ©2002 – 2015. Job club. *mpsv.cz* [online]. 17. 5. 2017 [cit. 2018-01-19.]. Available at: http://portal.mpsv.cz/sz/obcane/jobclub

[19] MPSV ČR, 2012. Aktivní politika zaměstnanosti a zákon č. 435/2004 Sb., o zaměstnanosti. *Portal.mpsv.cz* [online]. 23. 1. 2012 [cit. 2018-01-19.]. Available at: https://portal.mpsv.cz/sz/zamest/dotace/apz

[20] MPSV ČR, 2013. Nové nástroje pro individuální práci s nezaměstnanými. *mpsv.cz* [online]. 16. 12. 2013 [cit. 2018-01-19.]. Available at: https://www.mpsv.cz/cs/16925

[21] MPSV ČR, 2016. Rekvalifikace. *Portal.mpsv.cz* [online]. 11. 2. 2016 [cit. 2018-01-19.]. Available at: http://portal.mpsv.cz/sz/obcane/rekvalifikace

[22] MPSV ČR, ©2016 – 2017. Pracovní rehabilitace. *Portal.mpsv.cz* [online]. 13. 12. 2017 [cit. 2018-01-19.]. Available at: http://portal.mpsv.cz/upcr/kp/jhm/pracovni_rehabilitace

[23] MPSV ČR, 2017. Rekvalifikace. *mpsv.cz* [online]. 17. 5. 2017 [cit. 2018-01-19.]. Available at: https://portal.mpsv.cz/upcr/kp/stc/rekvalifikace

[24] MPSV ČR, 2017a. Poradenství. *Portal.mpsv.cz* [online]. 25. 10. 2017 [cit. 2018-01-19.]. Available at: http://portal.mpsv.cz/upcr/kp/plk/poradenstvi
[25] MPSV ČR, 2018. Poradenství. *Portal.mpsv.cz* [online]. 10. 1. 2018 [cit. 2018-01-19.]. Available at: https://portal.mpsv.cz/upcr/kp/jhm/kop/breclav/profesni_poradenstvi
[26] NVF, ©2011. Srovnávací studie 03. *esfcr.cz* [online]. 2012 [cit. 2018-01-19.]. Available at:http://esfdb.esfcr.cz
[27] OAED, ©2012. OAED's Administrative Organization. *Oaed.gr* [online]. © 2012 [cit. 2018-01-19.]. Available at: http://prev.oaed.gr/index.php?option=com_content& view=article&id=721&Itemid=687&lang=en
[28] OAED, ©2012a. Training programmes. *Oaed.gr* [online]. ©2012 [cit. 2018-01-19.]. Available at: http://prev.oaed.gr/index.php?option=com_content&view=article &id=632&Itemid= 638&lang=en
[29] OAED, ©2012b.Counselling. *Oaed.gr* [online]. ©2012 [cit. 2018-01-19.]. Available at: http://prev.oaed.gr/index.php?option=com_content&view=article&id=1176:2012-02-08-17-45-18&catid=28:2011-11-21-08-34-19&Itemid=152&lang=en
[30] PATRIA ONLINE, 2017. ČR-nezaměstnanost na novém minimu 3,5 %, volných míst je rekordních 214 000. *kurzy.cz* [online]. 8. 12. 2017 [cit. 2018-01-19.]. Available at: https://www.kurzy.cz/zpravy/ 440191-cr-nezamestnanost-na-novem-minimu-3-5-volnych-mist-je-rekordnich-214-000/
[31] PLESNÍK, V. a ŠOBÁŇOVÁ, P., 2014. *Profesní poradenství pro dlouhodobě nezaměstnané*. 1. vyd. Krnov: Reintegra. ISBN 978-80-905810-1-2.
[32] VOŠAHLÍKOVÁ, H. 2010. *Zpráva ze studijní cesty*. Praha: Národní vzdělávací fond
[33] [cit-2014-12-18]. Available at: http://old.nvf.cz/zamestnanost/info_verejne.htm
[34] Zákon č. 435/2004 Sb., o zaměstnanosti, v platném znění, 2004. In: Sbírka zákonů České republiky, částka 143.

CORRUPTION PERSISTENCE IN POSTSOCIALIST SOCIETIES: OPEN SECRETS OR UNDERESTIMATED ASPECTS?

Zvonimir Savić[1]
Ružica Šimić Banović[2]
Ivana Bajakić[3]

DOI: https://doi.org/10.31410/EMAN.2019.673

Abstract: *Corruption presents an extreme case of lacking confidence in society's official structure. It seems to be rather inevitable issue in transitional countries and appears to be closely related with the existence of relationship-based markets and their (too) slow transformation into impersonal rule-based markets. The evidence shows that corrupt deals impose high transaction costs and that corrupt relations are often embedded in legal relations. No part of the World might be considered fully excluded from corruption phenomenon. Yet, research in Eastern Europe indicates that people feel obliged to reward the help of others, especially when dealing with public sector employees. In addition, ordinary citizens consider petty corruption as a (legitimate) reward for given service and even if they use it often, they do not perceive themselves as bribe-givers or bribe-takers. This paper seeks to disentangle ambiguities, complexities and difficulties in its measurement. Therewith it contributes to the debate on corruption as one of the omnipresent informal practices, fine-tuning of its understanding and possibilities to address it in an efficient way.*

Keywords: *Corruption, Eastern Europe, Governance.*

1. INTRODUCTION

The title in the recent Economist (2018a) states: 'Brazilian ex-president Lula's corruption verdict does not end his career. But it sure complicates the forthcoming presidential election.' Many other recent headlines refer to various corruption cases ranging from petty corruption to systemic corruption all over the World. In general, prevalence of corruption mostly is linked with privatisation, size of the public budget, level of economic freedom and economic development. In addition, the surveys associating corruption with religion, trust and values have increasingly been conducted. This paper adds to the body of literature tackling 'soft' context of corruption with an emphasis on postsocialist societies, its specifics and implications. It contributes to the debate on corruption as one of the omnipresent informal practices, fine-tuning of its understanding and possibilities to address it in an efficient way.

The paper is structured as follows. Section 2 places the corruption issue in the institutional economics and economic sociology literature and Section 3 complements that literature review with tacit highlights on corrupt practices. Section 4 examines the relations of corruption and governance in (post)transitional societies. Sections 5 concludes the discussion.

1 Financial institutions and economic analyses sector, Croatian Chamber of Economy. Croatia
2 Department of Economics, Faculty of Law, University of Zagreb, Croatia
3 Department of Economics, Faculty of Law, University of Zagreb, Croatia

2. CORRUPTION THROUGH INSTITUTIONAL PERSPECTIVE

The evidence suggests that countries can reach middle-income levels despite some corruption, but further development depends upon the improvement of institutions (Easterly 2001, pp. 234-248). In addition, Dixit (2004) warns that the design or reform of formal institutions should ensure that they interact well with existing informal ones and that it may be necessary to accept some transitional worsening of performance. Ensminger (1997) confirms Dixit's point claiming that formal institutions may not reach their objectives if existing informal rights are not overridden. While describing the new institutional economics as 'a boiling cauldron of ideas', Williamson (2000, p. 610) also notes that the informal institutions, or institutions of embeddedness from his model of New Institutional Economics, 'are an important but underdeveloped part of the story'. The common explanation for this area remaining under-researched is the fact that, due to its nature, economists left it to other social science disciplines, particularly to sociologists (Opper, 2008). Economic sociology presents the concept of embeddedness of economic actions in social relations and "oversocialised" view of human action (Granovetter & Swedberg, 2001). In line with that, Culpepper (2001) claims that legal system is embedded in political economy structure and Whitley (1997) and Rodrik (2009) argue that market economy is embedded in nonmarket institutions. Besides inequality of wealth and income as one field, Roland (2000, p. 344) recognizes social behaviour, norms, and capital as the other important field lacking research on transition. North (2005, pp. 74-75) lists some of the fundamental unanswered questions on the evolution of informal constraints:

'What is their relationship to changes in the formal rules? How do they evolve? How much is conscious, deliberate change and how much is incremental, non-deliberate in nature? And what is the contribution of changing informal constraints to overall cultural change? … Our concern here is with the implications of informal constraints for economic performance and, particularly, the sources of their change. Informal constraints directly influence transaction costs. Norms of honesty, integrity, reliability lower transaction costs.'

In general, North (2008) notes a surprising persistence of numerous aspects in a society despite the total change of rules, and emphasises that the proponents of sudden changes rarely observe this phenomenon. These aspects of the society are informal constraints; they solve the coordination problems in society and include '1) extensions, elaborations, and modifications of formal rules, 2) socially sanctioned modes of behaviour, and 3) internally enforce standards of conduct' (North, 2008, p. 40). Informal institutions have mainly spontaneous origins, and because of those evolutionary origins they are characterised by inertia, it takes even centuries and millennia to change them. Some of them are functional, others take on symbolic value, and many are linked with complementary formal and informal institutions (Williamson, 2000, pp. 596-597). Informal institutions can be found on level I of Williamson's New Institutional Economics figure. Roland (2004, p. 128) stresses that '[I]n order to have a meaningful understanding of institutions as *systems*, we need to understand interactions between different institutions…institutions may themselves be viewed as the interaction of fast-moving (political) and slow-moving (cultural) institutions'. Apart from political institutions, democratic and participatory culture is proved one of the key factors for long run economic growth. Furthermore, because of the speed of the change of political institutions, the system of values and beliefs plays an additional role in possibly ensuring complementarity with formal institutions (Jellema & Roland, 2011).

The afore listed claims provide some theoretical considerations and frameworks on the embeddedness of informal constraints in formal structures. Moreover, various informal practices seem to play a crucial role in 'getting things done', but are at the same time undervalued in policy making and policy implementation. Therefore, combatting corruption requires rather holistic and persistent approach.

3. BEHIND AND BEYOND CORRUPTION: KEY (TACIT) INSIGHTS

Corruption as an inevitable issue in transition and an extreme case of lacking honesty and trust in society's official structure seems to be closely related with the existence of relationship-based markets and their transformation into impersonal rule-based markets. And that is the case in post socialist societies. Based on their grabbing hand model, Shleifer and Vishny (1999) claim that public officials intentionally produce and implement regulations for which the business people would be forced to pay bribes if they want to pursue their economic activities. The corruption problem gets even bigger when several politicians simultaneously create multiple barriers that eventually force some entrepreneurs to stop their businesses or move to grey economy (Shleifer & Vishny, 1999, Ch 5). Lemke (2001, pp. 12-13) claims that a large informal sector diminishes the public trust in the social support provided by a state that is already relatively weak. Civil society and charity organisations compensate for those deficits but that in turn makes them undermine the key idea of social citizenship because they usually provide charity instead of social rights that should be provided by the state. Lambsdorff (2007) states that 'those who are willing to carry out corrupt acts lose the capacity to commit to honesty' (p.ix). His main idea about fighting corruption lies in making it as difficult as possible, i.e. 'invisible foot' principle that may be explained as destroying the confidence that is attached to corrupt activities. Lambsdorff (2007) stresses that in corrupt cases, 'know-how' is very often replaced by 'know-who' and that is why investigating corruption is about scrutinising the 'art of bribery'.

Rose-Ackerman (1999) seeks to answer where the line between legal and illegal payments should be drawn. Among other issues in her analysis the fundamental similarities between gifts and bribes are shown and the complexity of balancing between 'old-fashioned' close personal ties and modern impersonal markets. Those contexts are particularly important because the label gift versus bribe is largely dependent on them. But at the same time:

'Gift giving and bribery will be more common when legal dispute resolution mechanisms are costly and time consuming. When legal guarantees are not possible, trust is correspondingly more important. But the lack of a legal backup means that some transactions are unlikely to be carried out.' (Rose-Ackerman, 1999, p. 304)

This statement further draws on Culpepper's (2001) point of the legal system not being autonomous and being strongly embedded in the political economy structure. Rose-Ackerman's (1999) research shows complexities and difficulties in distinguishing and normatively evaluating prices, bribes, gifts, and tips in the developed countries. Yet, the task becomes even more complex when doing the same for the developing and transition countries. In those groups of countries, the line between private and public is rather ambiguous and insufficiently defined and hence the transition to more impersonal society with strong institutions becomes a challenging task, mostly because it implies abandoning worthy issues in their previous system of traditions and norms. In accordance with that, while trying to organize monetary payments categories, Zelizer (1999) notes that the essential difference observed should be in the social relations of the parties involved, and defining those relations includes not only the economic analysis but the historic and cultural background, too. This implies that definitions of payments will be different across countries and times. Nevertheless, Lambsdorff (2007) warns of further complexity of geographical coverage of corruption; albeit developing countries are commonly perceived as the most corrupt ones, many cases show that multinational companies and international donor organisations are involved in the various options of the 'art of bribery'.

Rose-Ackerman (1999, pp. 323-324) underlines that the definition of bribes and gifts is a cultural matter, but culture is an ever-changing entity. Therefore, Rose-Ackerman (1999) suggests the role economists might play in showing costs-benefits ratio in alternative ways of organizing economic actions that would be less corrupt (at least through the outsiders' lenses). That is also the manner that may fundamentally change the perception of acceptable behaviour in a society if citizens realize the long-term costs of unregistered payments to the politicians. Those developing society practices might also serve as a laboratory for the Western experts aimed at their understanding of the personal ties and 'implicit contracting'. There is also a possible inherent threat of the inappropriate labelling: bribery and corruption versus gift giving and altruism having in mind the power of the same issues being named differently and therefore causing support in one case and possible punishment, or at mildest the disapproval in the other (Rose-Ackerman, 1999). In addition, returning to the 'big picture' of the insufficiently or inappropriately developed formal institutions in developing and transitional societies, and their interactions with the informal ones, Aligicia and Tarko (2014; p. 157 based on Scheider et al, 2010) observe:

'in developed countries corruption is a complement to the official economy, rather than a substitute, while in the developing countries the situation is reversed.'

4. CORRUPTION AND GOVERNANCE IN POSTSOCIALIST (EU) SOCIETIES

Corruption is considered a major problem in transitional societies. According to headlines, it is deemed to remain an endemic, even unbeatable issue in postsocialist European and Asian countries (Transparency International, 2015a; Meydan.tv, 2017) despite numerous corruption prevention and awareness raising initiatives (OECD, 2017) in addition to penalties and prosecution. It presents an obstacle to economic development, political stability and governance as it is mostly connected with strong state capture. Inefficient anti-corruption laws cannot solely explain the prevalence of corruption. One of the main reasons may be found in vested interests blocking its implementation. In addition to that, dominant national culture often (tacitly) tolerates corrupt practices as it is a common and productive way of 'getting things done' both at very low level and at the top level of the system. Numerous studies scrutinising corruption phenomenon in transitional societies provide similar findings.

The research conducted in Armenia, Azerbaijan, Georgia, Moldova and Ukraine (Transparency International, 2015b) lists three key underlying issues: insufficiently accountable executive power, politicised and ineffective judiciaries and unfavourable conditions for independent civil society. In line with those findings, most other Post-Soviet countries also show rather great corruption prevalence despite nominally introducing numerous anti-corruption restrictions and penalties, and even arresting highly ranked public officials (Meyden.tv, 2017). The only Post-Soviet exceptions are to be found in questionable Georgia (Meydan.tv, 2017) and less questionable Post-Soviet Baltic states that became EU members in 2004 (according to Transparency International, 2017 data). Yet, the corruption trends in the latest EU members (Romania, Bulgaria and Croatia) show to be quite contrary to the expectations on downsizing corruption because of EU pressure. Dabrowski (2017) describes it as Eastern Europe's Corruption Renaissance claiming that 'upon achieving membership, new EU countries tend to slide back into complacency'. Overall, despite some positive moves, the newest EU member states are still missing the proper speed and strength of the structural reforms in order to address current competitiveness challenges (Bajakić et al, 2019).

The costs caused by direct and indirect effects of corruption in the European Union are estimated to be between €179bn to €990bn in GDP terms on an annual basis (EPRS, 2016). The afore-mentioned study also confirmed very high social and political costs of corruption: rising inequality, weaker rule of law, lower voters' participation and less trust in institutions. The anti-corruption measure that is increasingly been suggested is Cooperation and Verification Mechanism under which only Bulgaria and Romania are being assessed. According to Dabrowski (2017), the revival of 'old-school corruption' in the EU obviously threatens its capacity to scrutinise the requirements fulfilment by the new member states. Consistent with the previous claim on (mis)use of the EU benefits, Sulik (2017: 36) emphasises the effects of EU funds that are fully opposite to their aim:

'Despite the good intention, European funds have become the largest source of corruption in Central and Eastern Europe, from the local level up to the political elite. Due to corruption, resources within the EU are reallocated through the funds in a very inefficient way.'

Sulik (2017) argues that EU programmes actually strengthen the socialist-like informal practices such as cronyism and that is mostly seen in the newest member states. Consistent to that, Fazekas et al. (2013) found that EU funding significantly contributes to corruption risks in Central and Eastern Europe. The reason is two-fold: first, those additional EU funded resources mostly serve as a rent seekers' target in public procurement; second, despite numerous monitoring incentives, there is still insufficient control of EU funded spending. Corruption in public procurement, bid rigging in particular, is found to be an immense problem in many European countries. Newer EU members are the worst in that regard according to various sources (The Economist, 2016); one aspect of it can be seen in Figure 2. It is valuable to note that the global evidence suggests that various aspects of public procurement process are strongly correlated with the infrastructure quality (Djankov et al, 2017). Those findings show that transformation towards market economy has not eradicated inherited culture of corruption in postsocialist economies. Alternatively, as The Economist (2011) summarises it, 'Corruption has replaced communism as the scourge of eastern Europe'.

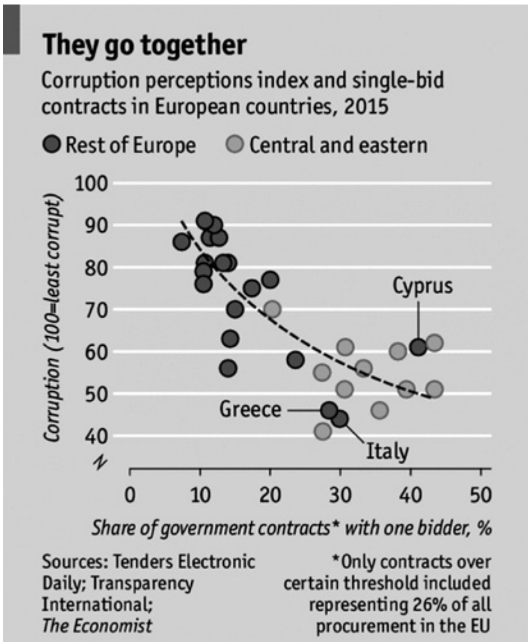


Figure 2. CPI and single-bid contracts across EU
Source: The Economist, 2016.

Considering previously mentioned relationship-based governance in postsocialist economies, it is valuable to inspect two aspects: first, tight relations of political and economic elites; and second, the specifics of networking in transitional societies. Regarding close relations of the elites, there are two legacy aspects to be taken into account. Going back to the beginning of 1990s, the elite retention was quite high despite the change of the system (Szelenyi & Szelenyi, 1995; Kornai, 2000; King, 2002), with Russia being a frontrunner in terms of old elites in power. In addition, the networks that helped in (re)building the system were later often in charge of clientelism and corruption (Rose-Ackermann, 1999; Šimić Banović, 2015, 2019).

The specifics of networking are best summarised in comparison: Western countries versus transitional societies, with an emphasis on Russian *blat* and Chinese *guanxi* as the most known practices. Key features of Russian and Chinese versus personal networking in the West are presented in Figure 3. Michailova & Worm (2003) stress that personal networking is a rather important resource in all countries observed. Yet, there are some distinctions that need to be considered in cases of Russia and China. First, connections are often more important than quality of a product or service offered. Consequently, personal relations may be considered essential determinant of a business success. Second, friendship or kinship plays greater role than a contract. Last, in-group members, incumbents in particular, are of greater significance than certain law. Prevalent national culture (briefly described in the first line of the Figure 3) provides favourable environment for the described relations.

Blat/guanxi	**Personal networking in the West**
Based largely on collectivism	Based primarily on individualism
Vitally important; often a matter of survival	Important
Highly frequent exchanges	Exchanges are discrete in time
At the workplace	Outside the workplace
Extended relationships	Direct exchanges
Exchanges are usually personal	Exchanges are usually non-personal

Figure 3. Networking - *Blat* and *Guanxi* vs West
Source: Michailova & Worm (2003: p. 510)

In addition to elite reproduction, i.e. retention of inherited practices, there is also a rising brain drain in European postsocialist societies. Atoyan et al (2016) study shows that one of the main drivers of emigration from Central and Eastern Europe is corruption maintained by political and economic elites. There is a strong correlation of control of corruption with private sector capacity for innovation, quality of national scientific research institutions and R&D expenditure (Mungiu-Pippidi, 2015); these indicators are further linked with attractiveness of workplaces for well educated people. Predominant number of emigrants are young, high-skilled people. Hence, Western countries benefit from their qualifications whereas their sending countries remain with ageing and less qualified workforce. Moreover, such migration developments have negative effects on growth, competitiveness and demographic trends in Central and Eastern European countries. Atoyan et al (2016) study claims that low quality of institutions like control of corruption and the rule of law motivates the people to leave their home countries. Matić's (2017) survey also confirms very high resistance of corruption despite awareness raising activities in countries where the influence of political elites is strong in public institutions (distribution of intergovernmental grants as shown by Glaurdić & Vuković, 2017 or recruitment of employees, for instance). Therefore, the emigration of high-skilled workers has been clearly linked with weaker governance quality, corruption prevalence in particular (Atoyan et al, 2016; Cooray & Schneider, 2016). Their emigration in turn leads to less pressure on accountability of incumbents and lower share of possible agents of change in their home country. The benefits for the receiving countries are obvious. To

underline, in accordance with previous findings: 'Corruption is detrimental for both inflows and outflows: it favors emigration of high skilled natives and reduces immigration of foreign talents, thus creating a net deficit of high skilled.' (Ariu & Squicciarini, 2013: p. 5)
The long-term perspective is not very optimistic as favouritism is shown to be more spread than previously claimed and meritocratic societies (the Western ones attracting the most highly educated immigrants) take generations to develop (Mungiu-Pippidi, 2015). Hence, large-scale economic migration combined with very limited return migration has become a major issue in Central and Eastern Europe. The most recent studies (afore listed among them) suggest that in order to prevent further brain drain, governments should improve the quality of institutions and governance efficiency, whereby the control of corruption should be highlighted. Otherwise, considering high rates of elite retention at the beginning of transition, who are then followed by newer elites not inclined to any major turnarounds; all of that combined with exodus of potential agents of change is highly unlikely to lead to any long-term, large-scale changes in most of the countries affected.

5. CONCLUSION

Theoretical considerations and empirical findings on the embeddedness of informal constraints in formal structures may be of a great help in understanding the corruption phenomenon. Namely, various informal practices seem to play a crucial role in 'getting things done', but are at the same time undervalued in policymaking and policy implementation. Corrupt acts are embedded in legal relations, and legal system is embedded in political economy structure. Therefore, combatting corruption requires rather holistic and persistent approach as the informal practices (like corruption) have shown to be rather certain, even though not legal, solution to numerous problems in public structures. The value system in transitional societies with its specifics requires different approach than the one designed for the Western countries; i.e. context-free solutions are unlikely to result in positive effects. In addition, the burning issues of large-scale economic migration, public procurement and EU funding problems indicate the necessity to urge those anti-corruption changes in (post)transitional societies. The alternative is to stay in a trap that is best described as 'Corruption has replaced communism as the scourge of eastern Europe' (The Economist, 2011).

Finally, global commitments to combating corruption have increased the pressure on companies to mitigate fraud, bribery and corruption risks. The studies show that many businesses have made significant progress in tackling fraud and corruption, but there is still a persistent level of unethical conduct. In the recent Global Fraud Survey (EY, 2016) the results showed that 51% of respondents in emerging markets consider bribery and corruption to happen widely in their country, which still makes the issue of fighting corruption globally essential.

REFERENCES

[1] Abed, GT & Davoodi, HR (2000). Corruption, Structural Reforms, and Economic Performance in the Transition Economies. IMF Working Paper, WP/00/132, July 2000. https://www.imf.org/en/Publications/WP/Issues/2016/12/30/Corruption-Structural-Reforms-and-Economic-Performance-in-the-Transition-Economies-3697
[2] Adam, C., & Dercon, S. (2009). The political economy of development: an assessment. *Oxford Review of Economic Policy*, *25*(2), 173-189.
[3] Aligicia, PD. & Tarko, V. (2014). Crony Capitalism, Rent Seeking, Institutions and Ideology. *Kyklos*. 67:2. 156-176

[4] Ariu, A. & Squicciarini, P. (2013). The Balance of Brains: Corruption and High Skilled Migration. IRES Discussion Paper 2013-10. Institut de Recherches Economiques et Sociales de l'Universite Catholique de Luovain. https://sites.uclouvain.be/econ/DP/IRES/2013010.pdf
[5] Atoyan, R., Christiansen, L., Dizioli, A., Ebeke, Ch., Ilahi, N., Ilyina, A., Mehrez, G., Qu, H., Raei, F., Rhee, A., Zakharova, D. (2016). Emigration and Its Economic Impact on Eastern Europe. IMF Discussion Note. July 2016. http://www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf
[6] Bajakić, I., Šimić Banović, R., Savić, Z. (2019). Competitiveness Today: Is Croatia Addressing Ongoing Global Challenges? in Šimić Banović, R. (Ed.) *Sixth Bosnian Herzegovinian, Croatian and Turkish Jurist Days - The Legal Framework for Economic Competitiveness Conference Proceedings*. Zagreb: Pravni fakultet Sveučilišta u Zagrebu, 153-175
[7] Cooray, A. & Schneider, F. (2016). Does corruption promote emigration? An empirical examination. *Journal of Population Economics*. 29. 293-310
[8] Culpepper, P. D. (2001). Employers, Public Policy, and the Politics of Decentralized Cooperation in Germany and France. In P. A. Hall & D. Soskice (Eds.). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (pp. 275-306). Oxford: Oxford University Press.
[9] Dabrowski, N. (2017). Eastern Europe's Corruption Renaissance. 18. July 2017 https://intpolicydigest.org/2017/07/18/eastern-europe-s-corruption-renaissance/
[10] Djankov, S., Ghossein, T., Islam, A.M., Saliola, F. (2017). *Public procurement regulation and road quality*. Policy Research working paper; no. WPS 8234. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/211711509895839032/Public-procurement-regulation-and-road-quality
[11] Easterly, W. (2001). *The Elusive Quest for Growth*. Cambridge, MA: MIT Press.
[12] Ensminger, J. (1997). Changing property rights: Reconciling formal and informal rights to land in Africa. In J. N. Drobak & J. V. C. Nye (Eds.). *The Frontiers of the New Institutional Economics* (pp. 165-96). San Diego, CA: Academic Press.
[13] EPRS - European Parliament Research Service (2016). The Cost of Non-Europe in the Area of Organised Crime and Corruption. March 2016 http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579319/EPRS_STU%282016%29579319_EN.pdf
[14] EY (2015). Fraud and corruption — the easy option for growth?; Europe, Middle East, India and Africa Fraud Survey. http://www.ey.com/Publication/vwLUAssets/ey-fraud-and-corruption-the-easy-option-for-growth-mena/$FILE/ey-fraud-and-corruption-the-easy-option-for-growth.pdf
[15] EY (2016). *14th Global Fraud Survey*. Corporate misconduct — individual consequences; Global enforcement focuses the spotlight on executive integrity; http://www.ey.com/gl/en/services/assurance/fraud-investigation---dispute-services/ey-global-fraud-survey-2016
[16] Fazekas, M., Chvalkovska, J., Skuhrovec, J., Tóth, IJ, King, LP (2013). *Are EU funds a corruption risk? The impact of EU funds on grand corruption in Central and Eastern Europe*. Budapest, Hungary: The Corruption Research Center Budapest Working Paper series: CRCB-WP/2013:03 November 2013. http://www.crcb.eu/wp-content/uploads/2013/12/Fazekas-et-al_EU-funds-and-grand-corruption-in-CEE_v2_2013.pdf
[17] Glaurdić, J. & Vuković, V. (2017). Granting votes: exposing the political bias of intergovernmental grants using the within-between specification for panel data. *Public Choice*. 171:1-2. 171: 223
[18] Granovetter, M., & Swedberg, R. (2001). Introduction to the Second Edition. In M. Granovetter & R. Swedberg (Eds.). *The Sociology of Economic Life* (2nd ed.). (pp.1-28) Cambridge, MA: Westview Press.

[19] Guiso, L., Sapienza, P., & Zingales, L. (2006). Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives*, 20(2), 23-48.
[20] Jellema, J., & Roland, G. (2011). Institutional clusters and economic performance. *Journal of Economic Behavior and Organization*, *79*(1-2), 108-132.
[21] King, L. (2002). Postcommunist Divergence: A Comparative Analysis of the Transition to Capitalism in Poland and Russia. *Studies in Comparative International Development*, *37*(3), 3-34.
[22] Kornai, J. (2009). What a Change of System from Socialism to Capitalism Does and Does not Mean?. In S. J. Shapiro, M. Tadajewski & J. S. Clifford (Eds.). *Macromarketing: Vol. 3.* (pp. 289-304). London: Sage.
[23] Kornai, J. (2010). Liberté, Égalité, Fraternité: Reflections on the Changes following the Collapse of Communism. *European Review*, *18*(3), 379-397.
[24] Lambsdorff, J. G. (2007). T*he Institutional Economics of Corruption and Reform: Theory, Evidence and Policy*. Oxford: Oxford University Press.
[25] Lemke, C. (2001). *Social Citizenship and Institutions Building: EU-Enlargement and the Restructuring of Welfare State in East Central Europe*. (Working Paper Series 01.2). Cambridge, MA: Centre for European Studies Program for the Study of Germany and Europe, Harvard University.
[26] Matić, R. (2017). Društvo i korupcija: Politički utjecaj u profesionalnim strukturama javnih institucija kao čimbenik korupcijskog rizika. *Društvena istraživanja*. 26:2. 187-206
[27] Meydan.tv (2017). The Unbeatable Corruption of Eastern Europe. 4. March 2017 https://www.meydan.tv/en/site/politics/21505/
[28] Michailova, S. & Worm, V. (2003). Personal Networking in Russia and China: *Blat* and *Guanxi*. *European Management Journal*. 21:4. 509-519
[29] Mungiu-Pippidi, A. & Dadašov, R. (2017). When do anticorruption laws matter? The evidence on public integrity enabling contexts. *Crime, Law and Social Change*. 68:4. 387–402.
[30] Mungiu-Pippidi, A. (2015). Corruption: Good governance powers innovation. 15. February 2015 http://www.nature.com/news/corruption-good-governance-powers-innovation-1.16927
[31] North, D. C. (2005): *Understanding the Process of Economic Change*. Princeton, NY: Princeton University Press.
[32] North, D. C. (2008). *Institutions, Institutional Change and Economic Performance*. New York, NY: New York University Press.
[33] OECD (2017). *Corruption Prevention in the Education, Extractive and Police Sectors in Eastern Europe and Central Asia*. OECD Anti-Corruption Network for Eastern Europe and Central Asia. https://www.oecd.org/corruption/acn/OECD-ACN-Study-Corruption-Prevention-Sector-Level-2017-ENG.pdf
[34] Opper, S. (2008). New Institutional Economics and Its Application on Transition and Developing Economies. In E. Brousseau & J-M. Glachant (Eds.). *New Institutional Economics - A Guidebook* (pp. 389-406). Cambridge: Cambridge University Press.
[35] Rodrik, D. (2009). *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton, NJ: Princeton University Press.
[36] Roland, G. (2000). *Transition and Economics: Politics, Markets, and Firms*. Cambridge, MA: The MIT Press.
[37] Roland, G. (2004). Understanding Institutional Change: Fast-Moving and Slow-Moving Institutions. *Studies in Comparative International Development*, *38*(4), 109-131.

[38] Rose-Ackerman, S. (1999). Bribes and gifts. In A. Ben-Ner & L. Putterman (Eds.). *Economics, Values, and Organization* (pp. 296-328). New York, NY: Cambridge University Press.
[39] Schneider, F., Buehn, A. & Montenegro, C. E. (2010). New estimates for the shadow economies all over the world. *International Economic Journal*. 24(4): 443–461
[40] Shleifer, A., & Vishny, R. W. (1999). *The Grabbing Hand: Government Pathologies and Their Cures*. Cambridge, MA: Harvard University Press.
[41] Sulik, R. (2017). Manifesto of Slovak Eurorealism: European Union Reform. European Conservatives and Reformists Group. March 2017 http://sulik.sk/wp-content/uploads/2017/03/european-union-reform-2017.pdf
[42] Szelenyi, I. & Szelenyi, S. (1995) A Circulation or Reproduction of Elites during the Postcommunist Transformation of Eastern Europe. *Theory and Society, Special Issue on Circulation vs. Reproduction of Elites during the Postcommunist Transformation of Eastern Europe*. 24(5). 615-638
[43] Šimić Banović, R. (2015). (Former) informal networks as a reflection of informal institutions in East European Transitional Societies: Legacy or opportunism? *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 10(1), 179–205.
[44] Šimić Banović, R. (2019) Uhljeb – a post-socialist homo croaticus: a personification of the economy of favours in Croatia?, *Post-Communist Economies*, 31:3, 279-300.
[45] The Economist (2011). Corruption in Eastern Europe: From Bolshevism to backhanders. 14. April 2011 http://www.economist.com/node/18560605
[46] The Economist (2016). Procurement spending: Rigging the bids. 19. November 2016 https://www.economist.com/news/europe/21710315-government-contracting-growing-less-competitive-and-often-more-corrupt-rigging-bids
[47] The Economist (2018a). Brazilian ex-president Lula's corruption verdict does not end his career. https://www.economist.com/news/americas/21735649-it-sure-complicates-forthcoming-presidential-election-brazilian-ex-president-lulas 28. January 2018 (accessed 29. January 2018)
[48] The Economist (2018b). Corruption is still rife around the world. 22. February 2018 https://www.economist.com/blogs/graphicdetail/2018/02/daily-chart-15
[49] Transparency International (2015a). Corruption in five Eastern European Countries Remains Endemic. 2. July 2015. https://www.transparency.org/news/pressrelease/corruption_in_five_eastern_european_countries_remains_endemic
[50] Transparency International (2015b). The State of Corruption: Armenia, Azerbaijan, Georgia, Moldova and Ukraine https://www.transparency.org/whatwedo/publication/the_state_of_corruption_armenia_azerbaijan_georgia_moldova_and_ukraine
[51] Vehovec, M. (2002). Neslužbeno gospodarstvo i neformalne norme ponašanja: koliko može pomoći etika u poslovnom ponašanju. [Underground Economy and Informal Norms of Conduct: How Much Can Ethics Help in Business Conduct]. *Financijska teorija i praksa*, *26*(1), 229-244.
[52] Williamson, O. (2000). The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, *38*(3), 595-613.

THE STATIC AND DYNAMIC EFFECTS OF EUROPEAN INTEGRATION

Witold Missalla[1]

DOI: https://doi.org/10.31410/EMAN.2019.683

Abstract: *The Single European Market is one of the principal achievements of post-war Western European integration. The SEM is perceived as reference point of the whole European Union. In addition, all its members have to obey Union's rules (Mercado et al, 2001). In March 1988 Paolo Cecchini was trying to estimate gains from the single market. Although his studies of integration were concerned with static and dynamic benefits from the common market, they were not very precise (El-Agraa, 2007). The greatest benefit of Single European Market can be found not in its once-off effect on resource allocation, but rather its dynamic effects: more innovation, faster productivity gains, greater investment and higher output growth (Baldwin, 1989). Especially innovation, which can be broadly divided into product and process development, is the key factor in the economic history of capitalist society (Rugman and Collinson, 2009). The new markets attract new investments and the entry of established and new companies (Piggott and Cook, 2006). According to Dent, "economists have established the concept of 'technological accumulation' whereby the technological advantage of countries, regions and firms is maintained by a so called 'snowball' effect" (1996:304). Consequently, economists assume that the growth of knowledge depends on future technological development. Unfortunately, there is a strong correlation between Europe's recent low levels of economic growth and its technological performance compared to its rivals (Dent, 1996).*

The dynamic factors of Single European Market have a stronger impact on members of the European Union than the static effects of trade creation and diversion. The European integration can result in greater competitiveness between companies. They have to become more efficient in order to survive the increasingly competitive environment (Atkinson and Miller, 1998). Certainly, "all firms face more competition from other firms in their national market, but at the same time they have better access to the other EU markets" (Baldwin and Wyplosz, 2009:205). Furthermore, Europe's weaker firms will merge or get bought up as a result of industrial restructure. Thus, bigger enterprises will be able to compete more successfully in the global markets (Baldwin and Wyplosz, 2009).

All things considered, Cecchini Report underestimated economic gains from the Single European Market by taking into account mainly static effects of integration, whereas Baldwin suggested that the medium-run growth effect could roughly double the Cecchini estimates (Baldwin, 1989). As Mercado stated, "the single market is not a static concept but an ongoing process" (2001:116). As a result, of the European integration previously regulated and protected national markets have become more international in character, where more efficient companies are able to exploit the economies of scale and compete more effectively in world markets, selling products to countries outside the EU (Atkinson and Miller, 1998). However, in order to maintain competitiveness especially compared to the United States, the European Union must put more emphasis on the investment in new technology (Piggott and Cook, 2006). The technology is crucial to all strategies that aim improve corporate or economic performance (Dent, 1997). Finally, "the technological capability of firms, countries and regions is determined by their ability to generate, absorb and adapt to new technologies and innovatory processes" (Dent, 1997:305).

Keywords: *International integration, European Market, innovation, technology.*

1 Wroclaw University of Economics, Komandorska 118/120, 53-345 Wroclaw, Poland

The Single European Market is one of the principal achievements of post-war Western European integration. The SEM is perceived as reference point of the whole European Union. In addition, all its members have to obey Union's rules (Mercado et al, 2001). In March 1988 Paolo Cecchini was trying to estimate gains from the single market. Although his studies of integration were concerned with static and dynamic benefits from the common market, they were not very precise (El-Agraa, 2007). The greatest benefit of Single European Market can be found not in its once-off effect on resource allocation, but rather its dynamic effects: more innovation, faster productivity gains, greater investment and higher output growth (Baldwin, 1989). Especially innovation, which can be broadly divided into product and process development, is the key factor in the economic history of capitalist society (Rugman and Collinson, 2009). The new markets attract new investments and the entry of established and new companies (Piggott and Cook, 2006). According to Dent, "economists have established the concept of 'technological accumulation' whereby the technological advantage of countries, regions and firms is maintained by a so called 'snowball' effect" (1996:304). Consequently, economists assume that the growth of knowledge depends on future technological development. Unfortunately, there is a strong correlation between Europe's recent low levels of economic growth and its technological performance compared to its rivals (Dent, 1996).

The static effects are associated with theory of comparative advantage concerning the efficiency with which economic resources within nations are allocated. "Countries have a comparative advantage in those goods that can be produced at a lower opportunity cost than in other countries" (Sloman et all, 2010:528). Thus, if trade would not exist, each nation would have some goods that were relatively expensive and some goods which were relatively cheap. However, "trade allows production to locate in its 'natural' place" (Baldwin and Wyplosz, 2009:392). Countries jointly benefit from free trade even if one has an absolute advantage in the production of all goods. As a result, total world efficiency and consumption increase (Rugman and Collinson, 2009).

A custom union is a form of economic integration where countries not only agree to have free trade among themselves, but also to impose common external barriers against imports from the rest of the world (Atkinson and Miller, 1998). The higher number of member countries in the union, the bargaining position of the union is likely to be greater. On the other hand, it will be more difficult to achieve consensus with many member countries since all nations must agree on a common negotiating position on every single product (Piggott and Cook, 2006). To quote from Baldwin and Wyplosz, "the Commission formally has the power to set tariffs on third nations goods, but very few groups of countries are willing to transfer that amount of national sovereignty" (2009:178-179). Nevertheless, until 1980's the formation of the custom unions was the main way of integrating economies of the member states (McDonald and Dearden, 1994). Generally speaking, the European Union promotes inter-block trade, but places restrictions on countries, which are not in the Union (Atkinson and Miller, 1998). At the beginning, the concepts of trade creation and trade diversion were associated with advantageous and disadvantageous welfare shifts in trading patterns (McDonald and Dearden, 1994). Trade creation appears as an effect of reducing trade barriers and greater specialization according to comparative advantage. Consumers do not have to pay high prices for domestically produced goods which are produced less efficiently, the goods can be imported cheaper from other members of the European Union. In return, the country may wish to export to them goods in which it has comparative advantage (Sloman et al, 2010). Trade diversion can be described as transfer of production from low-cost producer outside the European Union to less efficient producers within the Union that are being protected by tariffs or other barriers (Atkinson and Miller, 1998). Finally, trade diversion improves balance of trade for the European Union as a whole (McDonald and Dearden, 1994).

The dynamic factors of Single European Market have a stronger impact on members of the European Union than the static effects of trade creation and diversion. The European integration can result in greater competitiveness between companies. They have to become more efficient in order to survive the increasingly competitive environment (Atkinson and Miller). Certainly, "all firms face more competition from other firms in their national market, but at the same time they have better access to the other EU markets" (Baldwin and Wyplosz, 2009:205). Furthermore, Europe's weaker firms will merge or get bought up as a result of industrial restructure. Thus, bigger enterprises will be able to compete more successfully in the global markets (Baldwin and Wyplosz, 2009).

As Pelkmans wrote, "technical efficiency is defined as input minimization at any given output level, given the employment of the best techniques available" (2001:97). Because of numerous public interventions, public regulations and border protection in the Western Europe of the 1950s, many industries were technically inefficient (Pelkmans, 2001). Thus, free trade, specialization and competition between industrial firms result in a more efficient use of resources (Atkinson and Miller, 1998). Apart from this, if producers are forced to reduce prices, consumers will enjoy an increase in their real incomes (El-Agraa, 2007).

The companies situated in the European market get the opportunity to gain the full potential economies of scale (Sloman et al, 2010). As Rugman and Collinson points out, "the cost of their components is kept to a minimum and the large production runs allow companies to spread fixed costs over more units" (2009:506). What is more, the exploitation of economies of scale and rationalization of production might lead to further new investment (El-Agraa, 2007).

The economic growth is the most important sphere of economic theory and policy (Winters, 1996). If given country wants to achieve economic growth, there must be investment. The higher the rate of investment, the higher will be the rate of economic growth (Sloman et al, 2010). The medium-term growth effects are called "induced physical capital formation", which is characterized by the investment in physical capital (Baldwin and Wyplosz, 2009). Unfortunately, "as the stock of capital relative to labour is rising, the marginal productivity of capital will fall, reducing the incentive to invest more" (El-Agraa, 2007:168). Due to diminishing marginal returns associated with pay rises and depreciation of machinery, further investment will only cause return of the growth rate to its former level.

The long-run growth effects refer to the rate of accumulation knowledge capital, for example technological progress (Baldwin and Wyplosz, 2009). Whereas technology transfer refers to benefits gained by domestic producers from the technology imported by companies from other member states (this is especially important in central European nations) (Sloman et al, 2010). It is the main mechanism through which growth is affected. Technological progress will rise productivity and output directly, and by rising the return on capital, it will increase the incentive to invest (Baldwin, 1989). Besides, technology spillovers can increase overall knowledge of workers and thus rise labour productivity (Piggott and Cook). Furthermore, advanced technology allows to reduce number of employees who are needed to carry out operations efficiently (Hodgetts et al, 2006). Finally, the ability of EU members to attract inward FDI flows is dependent on their techno-scientific capabilities (Dent, 1997). On the other hand, "some work by Hubert and Pain in 2000 showed that a 1 per cent rise in the output of foreign firms in a particular industry will rise technical progress by 0.53 per cent in domestic firm in that industry" (Sloman et al, 2010:511).

Baldwin suggests that,"allocation effects are 'one-off' in the sense that a single policy change leads to a single reallocation of resources" (Baldwin and Wyplosz, 2009:212). At the same time, dynamic effects operate in a way that is fundamentally different from static allocation effects – they are based on the changeable rate at which new factors of production – mainly capital – are accumulated (Baldwin and Wyplosz, 2009). What is more, it can be illustrated that gains from improvement of technical efficiency after the reduction of protection are many times larger than the net benefits from trade creation over trade diversion (Pelkmans, 2001). Consequently, it leads to a cost reduction per unit of production, so greater specialization and increased competition affect the entire output, not just a part that is traded (El-Agraa, 2007). Furthermore, the dynamic effects are ongoing, which continue being enjoyed several years after the integration process is complete (El-Agraa, 2007). Therefore, technological improvements can increase the marginal productivity of capital continuously since they are not subjects of diminishing returns (Baldwin and Wyplosz, 2009).

All things considered, Cecchini Report underestimated economic gains from the Single European Market by taking into account mainly static effects of integration, whereas Baldwin suggested that the medium-run growth effect could roughly double the Cecchini estimates (Baldwin, 1989). As Johnson (1995 cited Mercado et al 2001:116) stated, "the single market is not a static concept but an ongoing process". As a result, of the European integration previously regulated and protected national markets have become more international in character, where more efficient companies are able to exploit the economies of scale and compete more effectively in world markets, selling products to countries outside the EU (Atkinson and Miller, 1998). However, in order to maintain competitiveness especially compared to the United States, the European Union has to put more emphasis on the investment in new technology (Piggott and Cook, 2006). The technology is crucial to all strategies that aim to improve corporate or economic performance (Dent, 1997). Finally, "the technological capability of firms, countries and regions is determined by their ability to generate, absorb and adapt to new technologies and innovatory processes" (Dent, 1997:305).

BIBLIOGRAPHY

[1] ARTIS, M. and NIXON, F. (2001) *The Economics of the European Union.* 3rd Edition. Oxford University Press.

[2] ATKINSON, B. and MILLER, R. (1998) *Business Economics.* FT Prentice Hall.

[3] BALDWIN, R. and WYPLOSZ, C. (2009) *The Economics of European Integration.* 3rd Edition. McGraw-Hill.

[4] BALDWIN, R. (1989) *The Growth Effect of 1992.* Economic Policy. No. 9.

[5] DENT, CH. (1997) *The European Economy: Global Context.* Routledge.

[6] EL-AGRAA, A. (2007) *The European Union: Economics and Policies.* 8th Edition. Cambridge University Press.

[7] FINANCIAL TIMES. (2011). *Poland finds its feet on European stage.* (updated 23 November) http://www.ft.com/cms/s/0/8f442ef4-0df6-11e0-86e9-00144feabdc0.html#ixzz1EimYEf1d

[8] HODGETTS, R., LUTHANS F. and DOH J. (2006) *International Management: Culture, Strategy and Behaviour.* 6th Edition. McGraw-Hill.

[9] JOHNSON, D. (2005) The new outsiders of central and Eastern Europe, with specific reference to Poland. *Journal Of European Integration*. Available at: http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=7df0a769-0d94-4b45-8de0-3938a4b915be%40sessionmgr114&vid=14&hid=2

[10] KRZYSZTOSZEK, M. (2011). Polish exports may grow up to 18 percent in 2011. *Warsaw Business Journal* (updated 2 December) http://www.wbj.pl/article-53297-polish-exports-may-grow-up-to-18-percent-in-2011.html?type=lim
[11] McDONALD, F. and DEARDEN, S. (1994) *European Economic Integration.* 2nd Edition. Longman.
[12] MERCANDO, S., WELFORD, R. and PRESCOTT, K. (2001) *European Business.* 4th Edition. FT Prentice Hall.
[13] MINISTRY OF TREASURY (2011) *Polish economy* (updated 2 December) http://www.msp.gov.pl/palm/en/71/2076/Background_information.html
[14] PELKMANS, J. (2001) *European Integration: Methods and Economic Analysis.* 2nd Edition. FT Prentice Hall.
[15] PIGGOTT, J. and COOK, M. (2006) *International Business Economics: A European Perspective.* Palgrave Macmillan.
[16] RUGMAN, A. and COLLINSON, S. (2009) *International Business.* 5th Edition. FT Prentice Hall.
[17] SLOMAN J., HINDE K. and GARRATT D. (2010) *Economics for Business.* 5th Edition. FT Prentice Hall.
[18] WINTERS, L.A (1996) *European Integration and Economic Growth* in M. Mackintosh, V. Brown, N. Costello, G. Dawson, G. Thompson and A. Trigg. Economics and Changing Economies, (London: Open University) chapter 14, pp. 457-495.

EXTENDED PRODUCER RESPONSIBILITY – THE ANSWER TO IMPLEMENTING CIRCULAR ECONOMY

Diana Căpriță[1]

DOI: https://doi.org/10.31410/EMAN.2019.689

Abstract: *The implementation of sustainable development principles and the prioritization of the circular economy as a healthy alternative to economic growth force manufacturers to change their vision of production by incorporating effective measures and innovative techniques in order to protect the environment.*

Each Member State, including Romania, committed itself to the implementation of European legislation last year by properly transposing the circular economy package and ensuring sustainable economic development through the implementation of responsible production principles. An eloquent example would be the „polluter pays" principle, which implies the continued responsibility of producers and their involvement in a European Sustainable Development Mechanism, by internalizing the financial effort to protect the environment in the final price of the product, at the shelf.

Although this principle was governed by Directive 2004/35/EC on Environmental Liability, transposition of the Directive has been progressively slow, with great differences between the Member States, even though the principle from which it started was the same: European producers to be accountable for both the pollution prevention action and the repair of any environmental damage, by providing the necessary expenses both with the prevention and the repair of the damages.

The extended producer responsibility, as provided for in the European circular economy package, must be implemented by identifying sustainable production practices that do not jeopardize the productivity indices of economic agents.

It seems to be the equation that will determine Europe's success in the battle of global economic development (especially with the United States and with China), the main unknown of which consists precisely in the identification of innovative production methods that respect the very fragile economy-environment ratio.

Keywords: *Circular economy, extended producer responsibility, recycle, waste.*

1. INTRODUCTION

Sustainable development is one of the main objectives set by the European Union through its leading institutions, in the medium and long term. By re-introducing secondary primary resources into the economic flow, it will be possible to increase EU competitiveness on the global market by addressing one of the most pressing problems of producers: resource shortages. The identification of innovative production methods that respect the production/ environment relationship by protecting the nature from the harmful side effects of economic activity will allow the gradual elimination of irreversible damage to soil, water, air, flora and fauna. Circular economy is therefore the unique solution of two of the biggest problems faced by the economy at macro level: increasing competitiveness and securing the raw materials needed for production under the conditions of limited, exhausting natural resources. Here's how the

[1] The Bucharest University of Economic Studies, Bucharest, Romania

circular economy can indirectly generate solutions to a range of geopolitical issues: access to alternative resources could put conflicts between states (including armed conflicts) to control the exploitation of certain resources. Unfortunately, recent history has proven that the control of natural resources is still the decisive element in triggering military conflicts, economic embargos, conflicting diplomatic relations between states, seriously damaging the development.

Changing the whole philosophy of the production process cannot be achieved without the involvement and responsibility of the main actors: producers, consumers and state institution. In other words, the achievement of the objectives of the circular economy by the Member States, which has been set at European level through the adoption of the Circular Economy Package, can only be achieved by implementing a widespread accountability of producers. **The principle of extended producers' responsibility** is based on the provision of a package of legislative measures to impose additional responsibilities on the producers for the collection and recycling of waste, as well as introducing forms of sanctioning them otherwise. In this way, considerable progress can be made in terms of both prevention and repairing possible damage to the environment, by obliging the manufacturer identified as responsible to provide the necessary financial resources (both for the prevention of damage and for repairing the negative effects produced in a specific environmental damage which was already produced). In order to achieve a unified European approach, we need not only a complete, concrete and coherent European regulatory framework, but also an effective transposition of national legislation, adequate implementation of the relevant rules and a transparent and effective reporting system, with measurable criteria able to allow comparative analysis of the evolution of all 27 Member States, in their process of meeting recycling targets. This will ensure the convergence of all Member States in terms of taking best practice and identifying the best solutions to increase the share of recycled / reused waste together with the decrease in the amount of waste generated/stored [1]. Achieving these goals depend substantially on both private and public financial allocations in the direction of building an efficient framework conducive to the development of the circular economy. In terms of public funds, they are mainly made up of European funds channeled through EU funding programs such as Cohesion Funds, LIFE Program- supporting innovation and recycling programs or COSME Program. As regarding European structural and investment funds (ESI funds) allocated under the Cohesion Policy in order to support the circular economy at the level of the European states and regions, it should be noted that although many of the thematic objectives to which the ESI funds are approved, in line with the 2020 Strategy, overlap with both the sustainable development objectives and, implicitly, with the objectives of the circular economy, the current legislative framework of cohesion policy does not clearly state the „circular economy" as a distinct category associated with the field of intervention [1].

That is why, in order to facilitate the correct and rapid implementation of the circular economy principles and to achieve the recycling targets set for 2025, 2030 and 2035, both the European institutions and the Member States are responsible for creating an economic environment which facilitates innovation and financing the recycling and re-use projects.

2. THEORTICAL BACKGROUND

Sustainable development and the transition from the linear economy to the circular economy require the implementation of clear environmental protection measures. The polluter pays principle is mentioned as an objective in Article 191 (2) of the Treaty on the Functioning of the EU. It states that „the Union's policy on the environment must pursue a high level of protection and must be based on the principles of precautionary action and preventive action, on the principle

of remedying, at source, damage to the environment and the polluter pays principle. It was implemented through the adoption of Directive 2004/35 / EC on environmental liability in relation to the prevention and repair of environmental damage. The process of transposition into national legislation was completed on 30 April 2007, with the exception of Croatia that transposed the Directive in 2013, but the recorded results are still fierce. Each Member State has set its own set of measures to make producers responsible both for preventing pollution and for repairing environmental damage. In the case of Romania, the transposition of Directive 2004/35 / EC was achieved through the adoption of Government Emergency Ordinance no. 68/2007 on environmental liability with regard to the prevention and repair of environmental damage.

The main measure consists in the fact that the costs related to the prevention, namely repairing the damages generated by the producers as a result of the economic activity carried out, would be transferred to the producer, which in turn will include them in the final price of the sold product.

3. PRODUCERS RESPONSIBILITY IN IMPEMENTING CIRCULAR ECONOMY

The transposition of the European directives on extended producer responsibility and the national legislation of the Member States has led European producers to change the economic model and production principles in order to protect the environment, while paying greater attention to the management of packaging. The „polluter pays" principle implies the financial responsibility of the European manufacturer, which will require covering the total costs of preventing and repairing the environmental damage produced by the economic activities carried out. Thus, the „polluter pays" principle means the internalization of the total costs generated by environmental protection obligations in the product's marketing price. On the other hand, the change of the paradigm regarding the production process, by implementing the principles of the circular economy, means channeling financial resources of the economic agents towards meeting two major objectives: substantial investments in innovation (in order to provide innovative means of production, efficient equipment which does not pollute and allow the use of secondary raw materials, and even the allocation of increased funds to the research and development departments for identifying their own innovative solutions) as well as the provision of necessary funds associated with the producer's extended responsibility (both at the stage of preventing the production of environmental damages and the repair of damages already caused by an environmental accident, generating the pollution of water, soil, fauna, flora, air). Europe's economic competitiveness on a global scale will largely depend on the extent to which the European producer will be able to translate into reality the goals outlined in the strategies developed by the two European institutions with legislative attributions: European Commission and the European Parliament. As stated in the opinion of the Committee on the Environment, Public Health and Food Safety on Cohesion Policy and the Circular Economy, the transition from a linear economy to a circular model is no longer a simple option, making it mandatory. This prioritization of the implementation of the circular economy is mainly due to the positive effects it generates, both in terms of protecting the environment and at economic and social level. Thus, the report states that „moving to a circular economy would reduce the amount of waste, generate new high quality jobs, increase the competitiveness of SMEs, create opportunities for social integration, strengthen the development of clean technologies, improve energy efficiency and resource use and reduce raw material consumption and Europe's dependence on imports of raw materials and energy" [5]. Considering that the unequal distribution of natural resources and the dependence of states on resource providers are elements that infiltrate power relations and geopolitical balance, essential consumption of natural resources, namely the identification of alternative resources and the protection of the environment, are essential objectives for European Union.

4. EXTENDED PRODUCERS RESPONSIBILITY ON PACKAGING (EPR)

The extensive liability of manufacturers regarding the management of packaging has been transposed differently into each of the 28 Member States' national legislation. The main benefits that the implementation of these principles generates consist in the good management of packaging waste, with the reduction of the total quantities of waste produced so as to meet the limits set by EU legislation, as well as the stimulation of differentiated collection, which contributes to the growth of the market secondary raw materials. Currently, the price of secondary materials exceeds the purchase price of resources, thus being inaccessible to some of the producers. Moreover, the secondary market is insufficiently developed, covering only 10% of the producers' need. Following the implementation of environmental protection principles, innovation in design and materials used in packaging is stimulated. However, about 60% of the produced waste is not recovered, thus making the transition to the circular economy more difficult. In the absence of sufficient secondary materials at affordable prices, manufacturers are forced to resort to the linear model of production. Producer responsibility extends over the entire life cycle of the product, being nagged in the recycling process of packaging. Therefore, the importance of ecological design is emphasized so as to stimulate the increase of the product lifetime through the possibility of repairing it, replacing parts, reuse or recycling. Equally, the environment is also protected by the European producers' assumption of the polluter pays principle, which allows accentuating preventive measures as well as repairing damage to natural resources: water, soil, protected species - providing the necessary funding for these actions.

4.1 Decoupling economic growth from the amount of packaging waste produced

Given the shortage of natural resources needed for its production, as well as the need to reduce the pace of extraction and use of natural resources, to maintain the growth rate and the well-being of European citizens, decoupling economic growth from the consumption rate of natural resources is imperative. However, the use of secondary raw materials depends on the pace at which the circular economy is imposed as a development model. As a consequence, achieving recycling targets becomes essential in changing the economic paradigm that Europe needs.

In this regard, the European Commission has set new recycling targets, which Member States have to meet in the medium and long term. The European rules on waste recycling and storage targets require the EU Member States a courageous sustainable development line, representing the most ambitious targets of this type at the global level. Thus, the total amount of municipal waste that will be reclaimed, resulting in secondary materials to be capitalized by reintroduction into the economic flow, will increase permanently as can be seen in Table 1.

Table 1: European targets for recycling municipal waste

An	Objective
<2025	55%
<2030	60%
<2035	65%

Source: European Commission, 2018a

As the manufacturer's responsibility has been extended over the entire life cycle of the product, packaging recycling has become mandatory. Thus, the involvement of the European manufacturer contributes to meeting the targets imposed on the recycling of packaging waste (Table 2).

Table 2: European targets for recycling packaging waste

Type of material	<2025	<2030
All packaging	65%	70%
Plastic	50%	55%
Wood	25%	30%
Ferrous metals	70%	80%
Aluminum	50%	60%
Glass	70%	75%
Paper and cardboard	75%	85%

Source: European Commission, 2018a

In order to achieve the targets imposed by the widespread accountability of the producers on the recycling of packaging waste, manufacturers are increasingly choosing environmentally-friendly, biodegradable packaging that meets consumer requirements and is increasingly aware of the environmental impact it causes. In this way, economic growth is disconnected from the production of packaging waste, and the targets for recycling and environmental protection are attained. Analyzing the statistical data collected at EU level, we find that the decoupling of the growth from the production and disposal of packaging waste has begun since 1998 (European Commission, 2014). Analyzing the statistical data for the period 2007-2016 provided by Eurostat, we can observe the tendency to decouple the growth from the production of packaging waste (Table 3).

Table 3: Decoupling economic growth from the total amount of packaging waste

Year	GDP/capita (euro/capita)	Packaging waste generated (kg/capita)	Packaging waste recovered (kg/capita)	Packaging waste recycled (kg/capita)	Packaging waste generate (thousands of tons)	Packaging waste recovery (thousands of tons)	Packaging waste sent for final disposal
2007	26200	163.3	118.4	96.6	81,521	59,119	22,402
2008	26300	163.1	118.6	98.7	81,723	59,440	22,283
2009	25000	152.8	113.9	95.4	76,802	57,237	19,565
2010	25500	156.3	119.5	99.3	78,747	60,232	18,515
2011	25900	159.1	123.3	101.5	80,115	62,088	18,027
2012	25700	156.3	123	101.2	78,895	62,068	16,827
2013	25700	157.2	124.5	102.7	79,581	62,995	16,586
2014	26100	163.1	128.4	106.9	82,791	65,168	17,623
2015	26700	166.6	131.5	109.5	84,844	66,976	17,868
2016	27100	169.7	136.3	114	86,689	69,632	17,075

Source: Based on data from Eurostat, 2019.

It can be noticed that the rate at which the amount of packaging waste per capita is growing is lower than both the rate at which the population's income increased (GDP / capita) and the rate at which the household expenditures on food and beverage increased. At the same time, the total quantity of packaging waste sent for final disposal drops considerably. Thus, if, in 2007, the total quantity of packaging waste which was sent for final disposal at EU level was 22,402 thousand tons, in 2016 there were only 17,075 thousand tons, with 5,327 thousand tons less. In other words, while economic growth is maintained and European citizens have access to high incomes, with the same consumption of food and beverages accounting for the same share of their total revenue, environmental effects are decreasing as a result of the increase in the total amount of recycled packaging waste.

4.2. Polluter pays principle (PPP): preventing and repairing the damages caused to environment by producers

The adoption of the circular economy package has led to an increase in the importance of the manufacturer's extended responsibility. The „polluter pays" principle means the producer's responsibility throughout the life cycle of the product, thus being involved in the recycling of packaging waste. At the same time, the manufacturer has responsibilities as to how he carries out his production activity. Production activity can cause damage to the environment, soil, water, air, protected species or natural habitat. [6] Producer responsibility arises in causing damage as a result of carrying out an activity of the kind expressly provided in Annex 3 of the Directive. Among these, we find all the activities involved in waste management (collection / transport / recovery / disposal), the discharge of pollutants into surface water or groundwater, the transport of dangerous or polluting goods as defined by Directive 96 / 49 / EC, the handling and transport of genetically modified organisms. By damaging the environment, European legislation understands any measurable negative change of a natural resource. [7]

In order to customize prevention and repair measures, it is important to classify damages. Depending on the natural resource affected, they can affect soil, water or biodiversity. According to data provided by Eurostat, the highest frequency of damage affects soil (52%), while water is affected by 28% of incidents and biodiversity by 20%. [13]

The difficult transposition of the 2004/35/EC Directive has allowed the centralization of a small number of cases. Since 2007, only 1245 cases of damage have been reported by the 27 states that have reported data to the Commission. Of these, a huge share is concentrated in two states: Hungary and Poland, which together account for 86% of the casuistry. At the same time, only 164 threats were reported to the Commission in which measures were taken in accordance with the Directive in order to protect the environment. These centralizations prove the inability to implement the Directive uniformly, and the lack of a unitary reporting system, easy to verify. [12]

5. CONCLUSION

As can be seen from the official reports drafted by the European Commission on the pace at which the provisions of Directive 004/35 / EC on the producer's extended liability are implemented, Member States still have difficulty in coping with the realization of European desiderata. The number of damage cases produced and repaired by manufacturers under the directives is still low and unevenly distributed. Manufacturers' involvement in packaging recycling is essential because new targets for recycling municipal waste and packaging waste imposed by the Commission for the next 5, 10 and 15 years. In this way, it will encourage and accentuate the pace at which decoupling economic growth from the production of packaging waste occurs and the environment will be protected from the effects of production without the competitiveness or well-being of European citizens being affected.

REFERENCES

[1] European Parliament (2018) *Rezoluţia Parlamentului European din 13 iunie 2018 referitoare la politica de coeziune și economia circulara (2017/2211(INI))* available online at http://www.europarl.europa.eu/doceo/document/A-8-2018-0184_RO.html

[2] Committee on the Environment, Public Health and Food Safety (2017) *Aviz referitor la politica de coeziune si economie circulara, destinat Comisiei pentru dezvoltare regionala (2017/2211(INI))* Available online at: http://www.europarl.europa.eu/doceo/document/A-8-2018-0184_RO.html#title3

[3] European Comission (2018) *Comunicarea Comisiei din 16 ianuarie 2018 privind un cadru de monitorizare pentru economia circulară (COM(2018)0029),* available online

[4] European Commission (2018a) *Press release. Circular Economy: New rules will make EU the global front-runner in waste management and recycling,* available online at: http://europa.eu/rapid/press-release_IP-18-3846_en.htm

[5] European Parliament. Committee on the Environment, Public Health and Food Safety. (2014) *Report on resource efficiency: moving towards a circular economy.* (2014/2208(INI)). Available online: http://www.europarl.europa.eu/doceo/document/A-8-2015-0215_EN.html

[6] The European Organisation for Packaging and the Environment (2013) *EUROPEN fact sheet on EPR for used packaging,* Available online at: https://europen-packaging.eu/policy/9-extended-producer-responsibility.html

[7] European Parliament (2004). *Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage,* Available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32004L0035

[8] Romanian Government (2007). *Law approving Government Emergency Order No 68/2007 on environmental liability with regard to the prevention and remedying of environmental damage.* Available online at:

[9] Eurostat (2019a) *Real GDP per capita* Available online at: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg_08_10&plugin=1

[10] Eurostat (2019b) *Real GDP growth rate* Available online at: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00115&plugin=1

[11] Eurostat (2019c) *Packaging waste by waste management operations and waste flow* Available online at: http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

[12] European Commission (2016) *REFIT Evaluation on the Environmental Liability Directive.98. SWD (2016) 121 final.* Available online at: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52016SC0121

[13] European Commission (2016) Report from the Commission to the Council and the European Parliament under Article 18(2) of Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage Available online at: https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-204-EN-F1-1.PDF

DOES TECHNOLOGY WIN OVER HUMANS?

Zdenek Dytrt[1]
Darja Holátová[2]

DOI: https://doi.org/10.31410/EMAN.2019.697

Abstract: *The dynamic development of the world is realized by changes in the current state, i.e. innovations, the parameters of which would allow relatively fast, even incomprehensive effects, from which competitive advantages and financial benefits are expected. On the contrary, it delivers quantitative values without their desirable quality that would satisfy the demands and expectations of innovation. Responsible management requires not only quantitative values, such as project or material and costs incurred, etc. It requires qualitative innovation to meet the ethical needs and social interests of the surroundings, and not just of the customer or the producer.*

We are talking about quantitative and qualitative innovations. Quantitative information can be tracked to a large extent during the implementation of innovation through the supplier's technical inspection. The qualitative values of innovation are gained by demonstrating its usefulness by observing technical and economic parameters, ethical and legal requirements and goals. It is too late to judge the qualitative values of innovation after their implementation.

Solving the problems of the current state or activity depends on the quality of decision and the definition of invention. It differs according to the degree of respect for the principles of managerial ethics and the difficulty of innovation. This is true regardless of whether the decision concerns a working or personal environment. It is certain, however, that only humans are able to decide and ethically solve the problem. Effective decisions depend on the level of responsibility and respect for ethical values when designing and implementing innovation.

This article and research were created with the financial support of scientific research at the Faculty of Economics of the University of South Bohemia in České Budějovice: Project 103 RVO / EF-IGS2017 - IGS09C1 - Ethics in Business Management.

Keywords: *technology, human, managerial ethics.*

1. INTRODUCTION

Decision-making is both the input and the output of human activity in society. It manifests itself by solving problems that are a priority of the need or interest of an individual or society as a whole. It concerns the decision-making processes of the development of management theory and practice that are limited to solving specific situations or problems without respecting the existence of contexts that are related to and affect the problem. Ethical and systemic solutions to problems require complexity and maximum knowledge of their effects or causes. Effective decision-making requires respect for the integrity of the solution, which contributes to a relatively long-lasting and effective outcome.

An example is the dynamic development of new technologies which the society is not prepared for. These can be the additions to material needs and equipment accessories, or the requirements

[1] Faculty of Management and Economics, Tomas Bata University in Zlin, Czech Republic
[2] Faculty of Management and Economics, Tomas Bata University in Zlin, Czech Republic

of social conditions that adequately increase productivity or quality of work done, etc. The time lag that arises from the origin of the invention or correction of earlier decisions reduces the effectiveness of the discovery and quality of decisions. In addition, it creates time for the application of unwanted activities, such as corruption, clientelism, or unfair business and political activities.

2. WHAT DO EFFECTIVE INNOVATIONS REQUIRE FROM A MANAGER?

If we make decisions only on the basis of quantitative information, our decision concerns only the quantitative values of solved problems, which produces quantitative management. Since every innovation requires a comprehensive solution, we must also respect the existence of the qualitative values contained within the addressed problems. The qualitative values not only result from, for example, the quality of material, but also from the quality with which the quantitative values were obtained. Ethical values reflect the ethics of management theory and practice, on the basis of which innovation was taken to benefit the society. This implies the importance of managerial ethics.

If we talk about the qualitative values of management, their real values can be difficult to read by technology, because we are not able to quantify them yet. When innovations do not respect the unity of quantity and quality, we are talking about quantitative management that enables consumerism. On the contrary, qualitative management complements the quantitative values of innovations by their properties and social benefits. It creates a prerequisite for the ethical and legislative climate in entrepreneurship and public administration.

The application of managerial ethics is important when deciding on strategic goals for transparent and integrated administrative cooperation. It requires integrated information that can be obtained on the basis of relatively wide cooperation not only from the internal structure but also from the professional environment, which contributes to the innovation process efficiency. In his time, Karel Čapek said that democracy is primarily based on ethical values. Transparency and responsibility concerns everyone who decides at work or on their own. The systematic application of managerial ethics in management theory and practice ensures its responsibility (Figure 1).

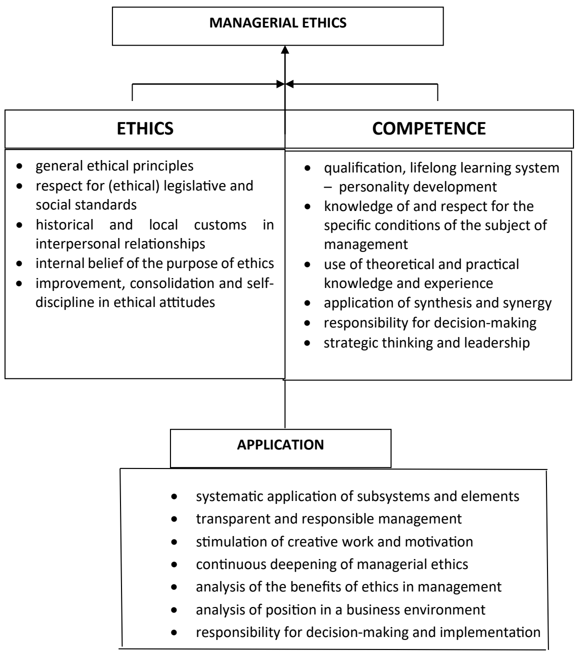


Figure 1 – Elements of managerial ethics, cf. Z. Dytrt: Ethical and responsible management

3. IS THERE AN INNOVATION PROCESS WITHOUT MANAGERIAL ETHICS?

An innovation process has its own rules that, if not respected, reduce its efficiency. Innovation has the form of a sinusoid. Upper and lower sinusoidal values tell us whether we are talking about positive or negative innovations.

The rules of the innovation process are continuity, comprehensiveness, consistency and timeliness. Even the decision-making process requires respecting the dynamics of the development of management theory and practice methods, because we generally think of innovation as a change in the current state of innovation. Innovation in management theory and practice cannot be forgotten. We practically call this activity 'management'. The current management development, influenced by the success of technology, is more orientated on its technical side. The advantage is an accelerated solution, but only of the quantitative values of problems. Disregarding the existence of qualitative values requires the application of managerial ethics.

Since the decision-making process has the character of an innovation process, we can consider the individual decisions as a change in the current state, i.e. the creation of an innovation process. The innovation process consists of partial innovations as well as the decision-making process consists of several decisions. Top manager's decisions fulfil the role of stimulating innovation, which is the induced innovation that develops and implements the stimulating innovation according to the conditions of their workplace for the lower management level.

Managerial ethics is an important mean of increasing the integrity of controlled objects and is also important for transparent and integrate cooperation of individual production and scientific spheres. If innovation politics are not complex, it lowers the effectivity of economic and social development and deepens bureaucracy. Managerial ethics increase the responsibility for decision-making processes.

The creation of innovations and their effectiveness is ensured by humans. The results of their work can be beneficial or not. The importance of managerial ethics should therefore be part of education. The knowledge of managerial ethics is desirable to deepen within the education system. Present evidence demonstrates that the quantitative philosophy brings undesirable properties to management theory and practice if applied in the decision-making processes.

The creation of innovations and their effectivity is ensured by humans. The results of their work can be benefice or vice versa. That is why importance of managerial ethics should be a part of educational system. The present is a proof that if quantity philosophy is individually applied in decision-making process; it brings unrented properties in the theory and practice of management.

Therefore, managerial ethics requires unity of quantity and quality so that the decision-making processes prevent undesirable problems from the outset of the invention. It is necessary to innovate the methods and forms of the education system vertical, not only within the management theory and practice, but also to emphasize the need for application of human sciences. It is a human component of ethics that is and remains the role of a person who decides on the content, form and goals of management. With the ability of creative thinking, a person is required to apply acquired knowledge, skills and ethical thinking.

We are currently looking for an answer to the question of what role humans will have in the future society and how they will be ready to address the dynamics of the previously unknown

possibilities of technology. Will it be sufficient to monitor the development of quantitative values and not just to be a monitor of their development?

To what extent should one be responsible for the development of the entire society? There are methods in management theory that can be used to prepare the society for the future. It is already obvious now that the further impact of quantitative management development does not address the efficiency of the economy and that it requires preparation to be a human-manager in the future.

The question is whether it is necessary to prepare for the future? Stephen R. Covey states that the principles will be more important than new businesses for successful leaders. The unity of quantity and quality will increase the efficiency of decision-making processes. We already have experience of disregarding qualitative values in decision-making processes. Incomprehensive quantitative information, as a basis for decision-making, is dealt with ex post only after its implementation of innovation. As far as management is concerned, the innovation theory, which is part of managerial ethics and draws from human philosophy, can be applied as a 'management' method. Its usefulness is manifested by the comprehensiveness of decision-making processes in managerial and scientific activities.

Disintegration in management theory and practice exists even in teaching. In the framework of educational processes, the integrity of scientific disciplines is beneficial as it extends the application of scientific disciplines during the creation of study programmes of technical and human faculties. It is the preparation of (primarily university) graduates, so that they can be beneficial for the application of comprehensive working procedures as soon as possible when starting their employment. There is significant cooperation also between scientific institutions and production fields. Effective use of philosophy results from the combination of the existing quantitative values of management and the qualitative ones. Educational institutions should strive for teachers to lead future graduates to achieve individual success and competitive advantages by applying ethical methods.

4. PREREQUISITES FOR APPLYING MANAGERIAL ETHICS

The ability to develop the courage to innovate and the ability to take responsibility for invention, i.e., the ability to solve what a new state of affairs and relationships should be;

The ability to overcome the state of production or other activity in imagination, i.e. the ability to imagine that things and relationships could be different than they are now;

The ability to develop the courage to innovate and the ability to take responsibility for the implementation of innovation;

Manager cannot overlook the creativity of their subordinates and degrade it to inaction. They cannot claim the right to be the only bearer of fantasy and inventiveness, even if they are ultimately the ones who take responsibility for the innovation implemented. The use of creative capabilities of the company's staff is the basis of the theory of knowledge-based economy, developed since the beginning of the 1990s;

Business strategy, as well as the strategic goals of scientific and educational institutions, makes it possible to overcome the deepening of quantitative management in decisions, being the output activity of management and fulfilling the role of innovation. Thus, it positively changes the current development of the problem in question and increases reputation or corporate culture;

Specific conditions of considered innovations tell us about the uniqueness of the subject of management and influence the measurable quantitative values of the given innovation. We consider them to be the factors that make innovation a success. This is related to the comprehensiveness and relative equilibrium of the development of all factors that must be respected by everyone who makes decisions. This is true for everyone who decides, whether on their own or at work.

The rule of comprehensiveness in decision-making processes shows the level of management from its preparation to its final implementation. In essence, it is the application of the principles of innovation theory that demands a balanced development of factors. Responsible management should respect all the rules of innovation theory, continuity, comprehensiveness, timeliness and consistency.

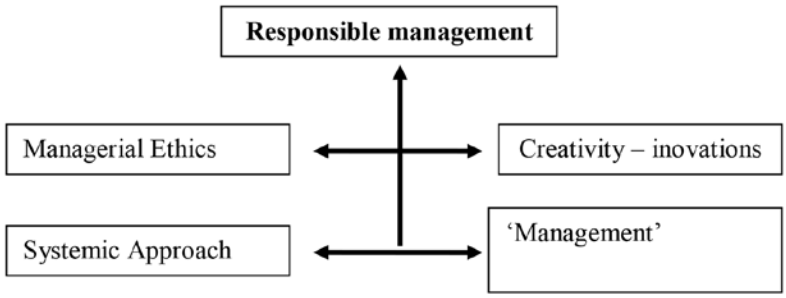


Figure 2 - Responsible management

This means that the stimulating innovation of the top manager is supposed to show economic, technical, administrative and social contexts and goals as stimulating innovation. Its development is considered to be the induced innovation of lower management levels. They participate in the form of induced innovation on the basis of their own specific conditions, within a set of individual factors of stimulating innovation. This ensures the integrity of subsystems and the comprehensiveness of decision-making processes of stimulating innovation. Creative teamwork is an advantage of the decision-making processes of individual management levels of a managed organization. The more complex and costly the innovation, the more challenging the innovation process is. A similar approach is also desirable for small and medium-sized organizations.

5. CONCLUSION

The rules of the innovation process (continuity, comprehensiveness, consistency and timeliness) must be respected as they are a prerequisite for implementing the effective innovations. Let us add the characteristics of the last two:

- **Consistency** requires a monitoring of decision-making on a project from the creative form of innovation to its implementation. It is the shortest time to find out the reasons for the derogations from the project or the management level at which they were created and why. Derogations of quantitative values can be detected relatively easily using analysis and computing. The consistent monitoring of causes and their range is more demanding with the values of qualitative character that cannot be numerically displayed.

It is necessary to work with the experts on the vertical management of the organization who are not yet ready for or led to ethical cooperation and loyalty.

- **Timeliness** is an important condition that requires the continuous development of the innovation process. When a functioning innovation implies a reduction in its efficiency, the process must be revived by a new innovation to ensure the efficiency of the desirable process. This is one of the most difficult decisions to be taken by a manager. The manager has to make their decision at a time when the original innovation is still functional to prevent chaos in the subject of management. It is necessary to determine the right moment for the implementation of a new innovation that would build on the original and not cause a diarchy, that is, chaos. It depends on the speed of decision and implementation of the solution. (1)

The inspiration and prerequisites to develop a dynamic development of technology are given to humans who, to survive historically, have had to fight nature and enemies from the outset of their existence. Genetically, they have worked to make innovations not only a development precondition, but also a requirement for their further development. Improving their development was a matter for humans, even though they had no idea of the current possibilities at that time, but the changes since the beginning of the development of society were innovations. Therefore, there is no reason for humans not to be considered as the primacy of innovative work.

However, the scope and dynamics of technological development at the present time requires further human activity so that the development and its dynamics, as a process, are intensified economically. Let us search for causes:

Reasons for the absence of cooperation in management theory and practice

Management goes through disintegration in its theory and practice. Its cause is a quantitative form of management that fails to respect the qualitative values forming unity and important tools for the intensification of decision-making processes. Failure to respect the unity of quantity and quality stems from generational problems of managers, the differences in the specific conditions of workplaces and institutions, and the extent of the requirements of public administration. Disregarding managerial ethics, which is the basis for qualitative management, is also an important reason.

The lack of cooperation between ministries and institutions, as well as among co-workers, is an important cause. Individualism in society is the consequence of quantitative management, which, although it produces competitiveness, is limited to quantitative values. It is a systemic breach of unity that creates room for maximizing human effort, but without managerial ethics.

The society pays for the lack of managerial ethics by the development of consumerism in various forms of corruption, clientelism and populism. To overcome it successfully, it is desirable to respect the qualitative management values in both the theory and practice since the formation of the objectives of decision-making processes. The actual decision-making process can then be managed as an innovate process, while respecting its rules.

The path to overcome quantitative management is challenging. It is therefore desirable to include the theory of managerial ethics that respects the unity of quantity and quality within the decision-making process in the teaching process. Decision-making affects everyone, because

we all decide about ourselves and about our job at work. An example is management education at universities of economics that do not use the appropriate parts of other disciplines in their curriculum. Ethical cooperation would also contribute to increasing the efficiency of decision-making processes. An example is philosophy and its meaning in management theory and practice. It is the influence of quantitative management that does not respond to the dynamics of technical development of the society. The cooperation of theoreticians and practitioners within the fields of science would also benefit from innovation in management theory, which can be called ‘management’ and the relative comprehensiveness of social development.

The required teaching of managerial ethics at universities would not be enough to implement qualitative management if it did not build on the knowledge of lower levels of the school system. It should be remembered that the system of school education is linked to the influence of family and the level of social culture. Quantitative management creates a special way of acting and thinking in the society. It is comfortable for people who enjoy an undemanding way of life and rely on the care of society. However, this is related to consumerism with all its consequences.

REFERENCES

[1] ARMSTRONG, M. Personální management. 1. vyd. Grada Publishing: Praha, 1999. 963 s. ISBN 80-7169-614-

[2] BLÁHA, J., DYTRT, Z.Manažerská etika.1.vyd.Praha:ManagementPress,2003.ISBN8O-7261-O84-8

[3] CASCIO, W., Managing Human Resources, 5th ed. NY: McGraw Hill. (1998). 416 s. ISBN 978-0138342289

[4] COVEY, Stephen., R., www.mgmtpress,cz.2014

[5] DERGLUND, J., LOWSTED, J. Management Awards - A Study of the Construction of Excellence Management. Paris: Colloquium 11th, 1993

[6] DVOŘÁKOVÁ, VLADIMÍRA, Evropizace veřejné sféry. Praha: C.H. Beck, 2010

[7] DYTRT, Z.a kol.Manažerské kompetence v Evropské unii. 1.vyd. Praha: C.H. Beck,2004.157 80-7179-889-4

[8] DYTRT.Z. Ethical and responsible management, Lambert L.P. Saarbrucken, 978-3-659-42484-7

[9] DYTRT.Z. GAJDUSKOVA, A., ZADRAZILOVA.D. Women and Management, LAMBERT,973-3659-22993-0

[10] DYTRT, Z.a kol. Etika v podnikatelském prostředí. Praha: GRADA, 2006. 196 s. ISBN 80-247-1589-9

[11] DYTRT. Z. a kol. Manažerská etika v otázkách a odpovědích 3344, Computer Press, Brno ISBN978-80-251-3344-6

[12] GUSTAFSSON, C. Ethics of Managerial and Organizational Knowledge, Paris: Ethics Colloquium, 11th., 1993

[13] HOLÁTOVÁ, D. Vzdělávání a rozvoj manažerů-cesta ke zvýšení kvality řízení. In: Kolektiv autorů: Manažerská etika III ... inspirace pro 21. století ... Praha: ECONOMIA, 2002. s. 63-75, ISBN: 80-85378-19-1

[14] KAPLAN, R., NORTON, D. 2005. Balanced Scorecard: strategický systém měření výkonnosti podniku. 4. vyd. Praha: Management Press. 267 s. ISBN 80-7261-124-0

[15] KAVATHATZOPOULOS, I. (2004). Making ethical decisions in professional life. In H. Montgomery, R. Lipshitz & B. Brehmer (Eds.), How professionals make decisions pp. 277-288). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

[16] KOLEKTIV: Manažerská etika – inspirace 21. století, (Dytrt.Z. ed.) I. II. III. díl Economia, Praha, 2000, 2001, 2002, ISBN: 8O-8625-O8-O9, 8O-85378-19-1
[17] KERMAGHAN, K. The Ethics Era in Canadian Public Administration. Research Paper No. 19. Ottawa: Canadian Centre for Management Development
[18] ŠÁDA.V, Diagnoza průmyslového podniku, S NTL. Praha 1976
[19] VALENTA, F. Etický aspekt funkce manažera in: Kol. Manažerská etika II. - inspirace pro 21. století. Praha: Economia, ISBN: 80-85378-19-1

COMPARATIVE ANALYSIS OF FEASIBILITY OF DIFFERENT CO_2 STORAGE SCENARIOS

Maja Arnaut[1]
Domagoj Vulin[2]
Lucija Jukić[3]
Daria Karasalihović Sedlar[4]

DOI: https://doi.org/10.31410/EMAN.2019.705

Abstract: *Carbon dioxide injection is the most used enhanced oil recovery (EOR) method and the benefit, besides additional oil recovery, which lies in the fact that in this process carbon dioxide retention in the reservoir occurs. Depleted reservoirs are more promising candidates for the carbon dioxide storage than aquifers and other geological formations since they are well characterized i.e., the reservoir properties are more certain because of the data gathering and reservoir model improvement during production lifetime. Since the hydrocarbon reservoirs retained fluids through geological time scale, they can be considered as proven traps that can retain fluids for a long time.*

Possibilities for CO_2 storage (CCS) and usage for EOR (carbon utilization and storage, CUS) have been extensively evaluated, but comparison of economic parameters is hard to perform. This paper presents the impact of key parameters on hydrocarbon production and stored carbon dioxide. The threshold values for operating costs, capital investments, and discount rate were tested by ESCOM application, enabling the evaluation of different reservoir sizes and conditions in the reservoir for CCS and CUS.

Keywords: *CO_2-EOR, CUS, CO_2 storage, flaring emissions.*

---

1. INTRODUCTION

Although CO_2 Capture and Storage (CCS) is considered a key solution for CO_2 emission mitigation, it is currently not economically feasible. CO_2 enhanced oil recovery can play a significant role in stimulating CCS deployment because CO_2 is used to extract additional quantities of oil. CO_2-EOR projects are CCUS (carbon capture utilization and storage) projects. CCUS is a new concept, actual over the last few years, and CO_2-EOR due to additional oil recovery has the greatest commercial perspective (Ettehadtavakkol et al., 2014; Bachu, 2016; Tapia et al., 2016). There is remarkable progress in the knowledge of CO_2 storage capacities related to hydrocarbon deposits (Novak et al., 2013; Novak et al., 2014; Vulin et al., 2018; Lekić et al., 2019), but they do not give economic comparison of possible storage scenarios.

Compernolle et al. (2017) showed the CO_2 and EOR investments separately in two different companies, the opportunity to invest in power plants and in the oil company. They showed that when uncertainty is integrated into the economic analysis, CO_2 and oil price threshold levels at which investments in CO_2 capture and enhanced oil recovery will take place, are higher than when a net present value approach is adopted. They also demonstrate that a tax on CO_2 instead of an emission trading system results in a lower investment threshold level for the investment in the CO_2 capture unit.

1 Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
2 Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
3 Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia
4 Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, p.p. 390, 10000 Zagreb, Croatia

Ferguson et al. (2010) studied the effect of "Next Generation" technologies on CO_2 storage and oil production potential of CO_2-EOR. They specified CAPEX of current application in the amount of \$2.20 /bbl oil and OPEX in the amount of \$3.10 /bbl oil. For the next generation technology specified CAPEX was \$3.0 /bbl and OPEX was \$5.20 /bbl.

Gaspare at al. (2005) presented an economic feasibility study for small Brazilian oilfield considering two complementary issues:
1) application of CO_2-EOR in order to extend the oilfield life i.e., displace residual oil left in place after primary and secondary oil production phase;
2) storing CO_2 in the oil reservoir. A discount rate of 12% was assumed for the project for which estimation of total CAPEX CO_2 sequestration can be described with the following equation:

$$CAPEX_t=CAPEX_{cap}+CAPEX_{comp}+CAPEX_{transp}+CAPEX_{stor} \quad (1)$$

where $CAPEX_t$ – total capital expenditure; $CAPEX_{cap}$ – capture costs; $CAPEX_{comp}$ – compression cost; $CAPEX_{transp}$ – transportation cost; $CAPEX_{stor}$ – storage cost.

The total OPEX is estimated similarly to the CAPEX approach:

$$OPEX_t=OPEX_{cap}+OPEX_{comp}+OPEX_{transp}+OPEX_{stor} \quad (2)$$

where $OPEX_t$ – total operational expenditure; $OPEX_{cap}$ – capture costs; $OPEX_{comp}$ – compression cost; $OPEX_{transp}$ – transportation cost; $OPEX_{stor}$ – storage cost.

Compression capacity is often estimated in units of capital investment per horsepower (HP). Smith et al. (2001) use a value of \$1060 per HP. Ettehad et al. (2010) report a range of 1500-3000\$ per HP. Luyben (2018) states that (if simplified analysis is performed) the most commonly used correlation for CO_2 compression is a function of maximum required compressor power:

$$\text{Compressor Cost (\$)}=5840(kW)^{0.82} \quad (3)$$

Calado (2012) analyzed compression trains for sequestration of carbon dioxide and proposed correlations for stainless steel compressors and electric motor drives:

$$\text{Compressor Cost (\$)}=2.5^{[7.58+0.8\ln(hp)]} \quad (4)$$

$$\text{Motor Cost (\$)}=2049+668.16(hp) \quad (5)$$

Luo and Zhao (2012) established the operating cost prediction model based on production decline law and learning curves through analyzing the impact of resource depletion and technological advances on unit operating cost.

Flanders et al. (1993) investigate the economic viability of conducting CO_2-EOR operations in small to medium-size fields under market conditions. Total start-up costs vary from 16 000 \$ to 99 000 \$ per active well.

Algharaib and Al-Soof (2008) developed an efficient and fast model to predict the economics of CO_2-EOR projects. The developed model consists of five modules (performance prediction

module, capturing cost module, compression cost module, transportation cost, and storage cost module) that predict the major economical constituents of CO_2-EOR projects. The model was used to predict the economics involved in capturing and storing CO_2 in a Middle Eastern reservoir. The results showed that drilling new wells and preparing the field for injection causes most of the expenditures. The model was subjected to sensitivity analyses to evaluate the effects of several parameters on the various cost components encountered in CO_2-EOR projects and the net present value. The effect of capturing CO_2 from different types of power plants on the capturing cost was investigated. The results also showed that CO_2 recycling has a significant impact on CO_2-EOR projects.

Fukai et al. (2016) presented a cost-benefit analysis in order to evaluate the economic feasibility of CO_2-EOR projects in Ohio. The analysis is applied to two Ohio oil fields (East Canton and Morrow Consolidated) to illustrate how the methodology can be used to constrain project economics and profitability. A simplified stream tube reservoir performance model (CO_2 – PROPHET) was used to estimate incremental oil recovery from CO_2 injection. The regression derived from the CO_2 break-even price calculated for a range of oil prices indicates that the change in the unit value of CO_2 for EOR is approximately four times the corresponding change in the unit value of oil. The presented break-even correlation represents a standalone metric that can be applied for projects screening purposes to determine the price conditions at which CO_2 becomes a feasible purchase for EOR and marketable asset for power plants with a capture technology.

Tayari et al. (2015) focused on developing a preliminary assessment of the economic feasibility of CO_2 storing in depleted unconventional natural gas-bearing shale formations. They presented site scale estimates of long-term CO_2 sequestration costs in depleted shale gas formations and discussed the likelihood of major cost drivers using a surrogate reservoir model and flexible environment for techno-economic analysis. Their approach includes techno-economic analysis with reservoir simulation models to estimate costs associated with transportation, injection, CO_2 separation and post-injection monitoring of CO_2 storage permanence from large industrial point sources in depleted shale-gas reservoirs. Also, they considered potential revenue from incremental methane recovery (effectively enhanced gas recovery, EGR) in reservoir scenarios where such production is significant. Under an operational scenario where a gas well is in primary production for 42 years prior to the initiation of CO_2 injection, it is estimated that CO_2 could be transported and stored at a levelized cost of \$40–\$80 (€35−€70) per ton. Costs are shown to be highly sensitive to well spacing, bottom-hole pressure (BHP), CO_2 transport distance and the future price of natural gas. In most of the scenarios considered, transportation and injection costs were dominant factors, while CO_2 separation and post-injection site care/monitoring did not significantly influence levelized costs.

Jablonowski and Singh (2010) organize and consolidate information on capital and operational costs for CO_2 storage projects. Drilling and completion costs depend on the number of wells to be drilled, sidetracked, or reworked and other important factors include the pressure overburden, reservoir depth and well design. Surface facilities comprise the other major share of capital investment for CO_2 projects and costs depend on the number of wells and their depth, the capacities and complexity of equipment, location and distribution of wells.

CO_2 injection and recycling (in the case of CO_2-EOR) including on-site separation, processing, and compression is shown in Figure 17.

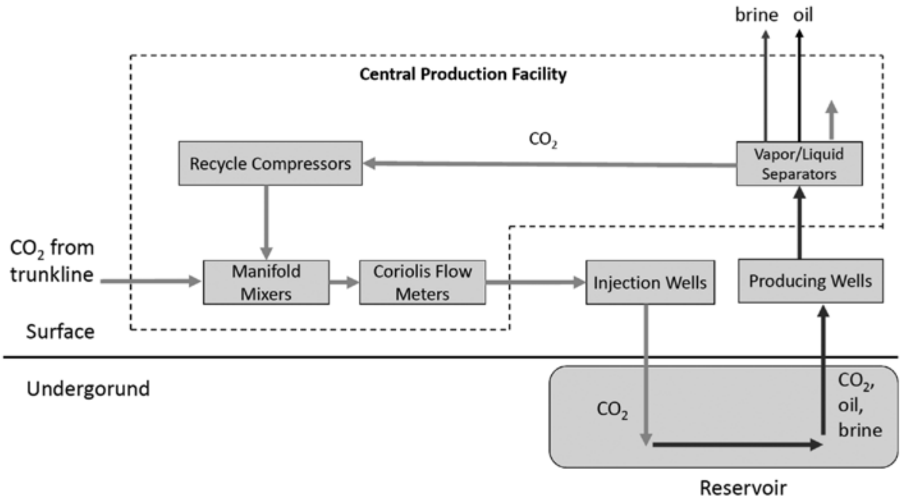


Figure 17: Simplified diagram showing components of CO_2 injection and recycling operations (modified from Fukai et al., 2016)

2. METHODS

All previously mentioned published works have their advantages and disadvantages. The advantages are in details of the analyses - when multiple parameters are optimized to make certain conclusions about one part of the system (e.g. CO_2 capture, or transport system, or CO_2 preparation and compression at the injection site, or reservoir/aquifer where the CO_2 is considered for injection). Sophisticated software and numerical models usually can simulate such segments, however, when it comes to integration of several parts of the system, the definition of the objective function is hard, and the number of independent input parameters increase rapidly. In this work ESCOM application (http://escom.rgn.hr), developed as a part of scientific project sponsored by Croatian Science Foundation and Environmental Protection and Energy Efficiency Fund, was used to integrate the economical parameters (prices, discount rates, CAPEX and OPEX), physical properties of a CO_2 injection site (petrophysical properties, reservoir size, porosity, fluid properties etc.) and oil production features (rate of oil production, i.e. reservoir depletion, rates of petroleum gas production, parameters for CO_2 injection in CO_2-EOR observations) with three objective functions:

- Maximization of oil production,
- Minimization of CO_2 emissions during production,
- Maximization of CO_2 reduction (i.e. energy efficiency and CO_2 storage).

These three objectives are comparable in terms of economic feasibility, so in this work, neglecting the energy policies related to greener industries and reduction of carbon emissions to some extent - the main comparison parameter was net present value of each process, assessed based on energy (oil and gas) production, energy required for CO_2 injection and the value of CO_2 storage.

The problem was divided to two sections:

Small oil field *without measures*. The economics of oil production at the field does not allow petroleum gas transport and selling, so it is flared. Algorithm assesses the emissions of CO_2 based

on produced petroleum gas density. The amounts of gas are calculated by material balance equations (Schilthuis, 1936; Tracy, 1955; Ramagost and Farshad, 1981; Ahmed and McKinney, 2011; Lyons and Plisga, 2011), and then the flaring CO_2 was assessed by stochiometric approximation based on gas density. The oil is produced at an existing field (because CO_2 emissions occur mostly at existing fields, because oil-field production life could range from 40 to more than 100 years), so CAPEX for oil production is not taken into account (only OPEX and royalty and discount factor).

In this case, two options can be considered - (a) using simple cycle peaking electricity generator (small power plant) for produced gas utilization and (b) CO_2 storage, but only after the reservoir oil production falls below economic limit.

Based on U.S. Energy Information Administration (EIA) analysis the cost of a conventional natural gas–fired combined cycle plant is $931/kW (Breeze, 2019).

Oil field that is a *good candidate for CO_2-EOR*. In this work (and ESCOM project) - screening for feasibility of EOR methods have not been performed. There is some screening criteria (Taber et al., 1997; Al-Adasani and Bai, 2010; Gao and Pan, 2010; Yin, 2015) but this would make the inputs within ESCOM application (which is free access web application) too complex, and the intention was to make the tool for simple assessments for those that are not reservoir or mechanical engineering experts. Parameter sensitivity study of CO_2-EOR is possible with ESCOM application, and CO_2 retention, additional oil recovery and NPV data can be observed as well.

3. INPUT DATA AND THE RESULTS

Two oil reservoir volumes and two production times were observed for two above mentioned sections, which results in four reservoir production scenarios (Table 10).

Table 10: Reservoir production scenarios

Scenario number	Reservoir volume (m^3)	Production time (years)
1	6 000 000	30
2	6 000 000	50
3	3 000 000	30
4	3 000 000	50

The number of scenarios increases rapidly, firstly by observing separately flaring, CO_2 storage and CO_2-EOR, thus the resulting observed parameters are:

Small field *without measures*:

- Electricity production from petroleum gas:
- NPV of a small power plant
- NPV of oil produced
- NPV of CO_2 cost (in this case, this is the expenditure, as CO_2 is released into the atmosphere)
- CO_2 storage after the oil production abandonment
- NPV of CO_2 stored
- NPV of oil produced

A *candidate field for CO_2-EOR*:

- NPV of oil produced
- NPV of additional CO_2-EOR recovery (CO_2-EOR OPEX and CAPEX included)
- NPV of CO_2 stored during EOR production

All discount rates, CAPEX and OPEX used in sensitivity study are summarized in Table 11.

Table 11: Sensitivity study values

Parameter	Tested values
Oil price	\$45 /bbl and \$70 /bbl
CO_2 price	€20 /t, €30 /t and €40 /t
IRR	9%, 12% and 15%
OPEX oil	15%
OPEX SCP	5%
OPEX EOR	15% and 25%
OPEX CO_2	9%
CAPEX SCP	€400 000, €500 000 and €600 000
CAPEX EOR	€8 000 000, €15 000 000 and €25 000 000
CAPEX CO_2	€5 000 000

Figures (2 to 5) show the results for flaring scenarios *without measures*, which are all combinations of respective parameters (Table 11).

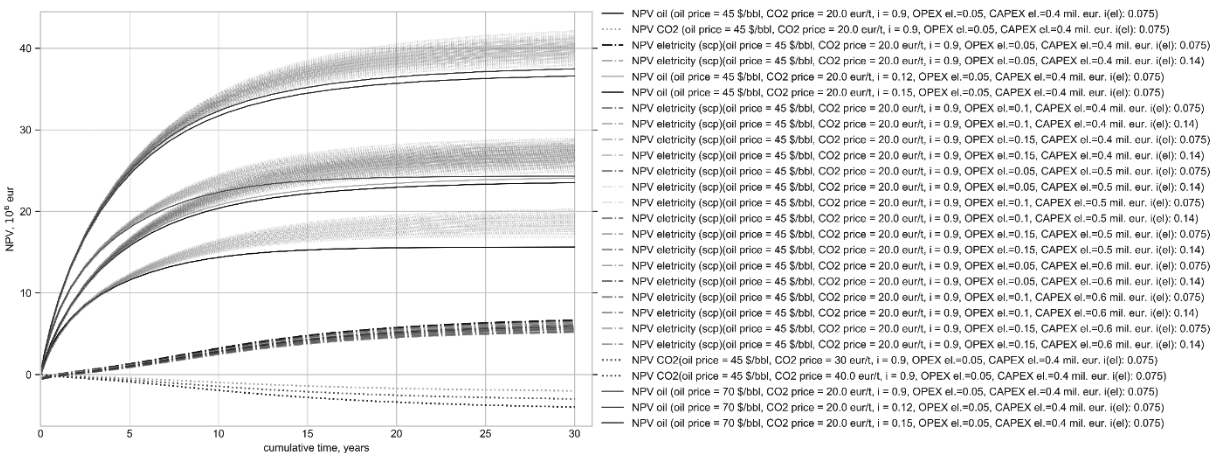


Figure 18: Net present value of flaring scenario 1

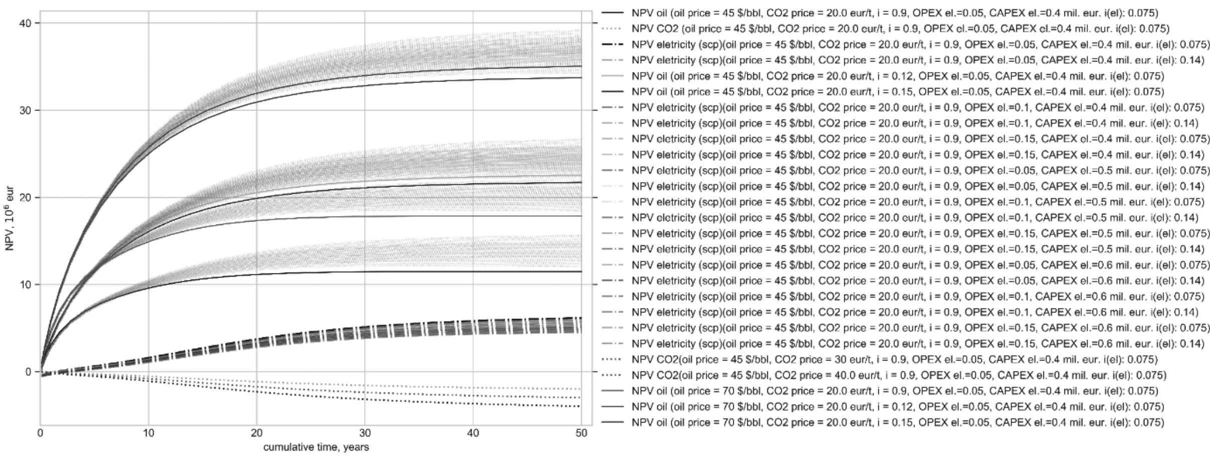


Figure 19: Net present value of flaring scenario 2

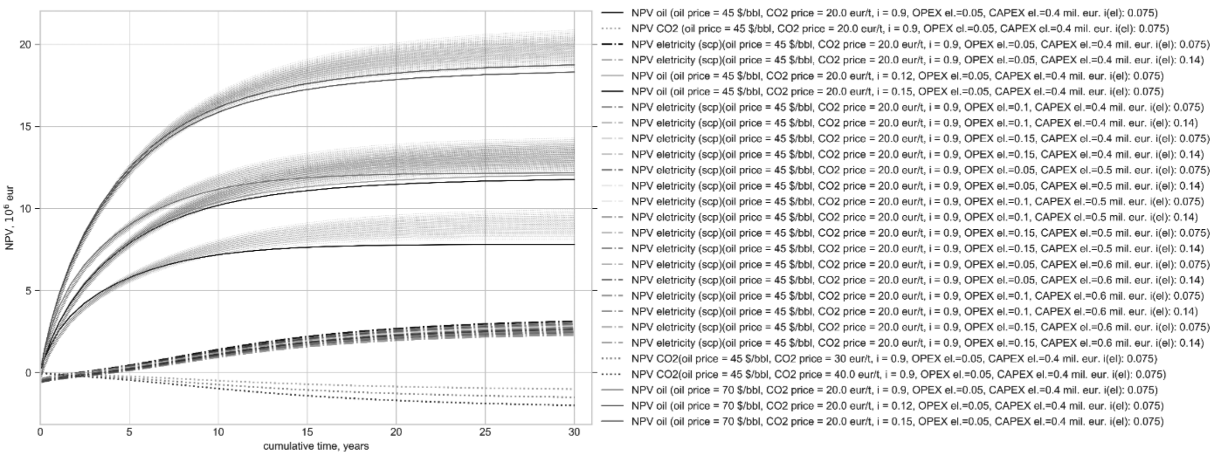


Figure 20: Net present value of flaring scenario 3

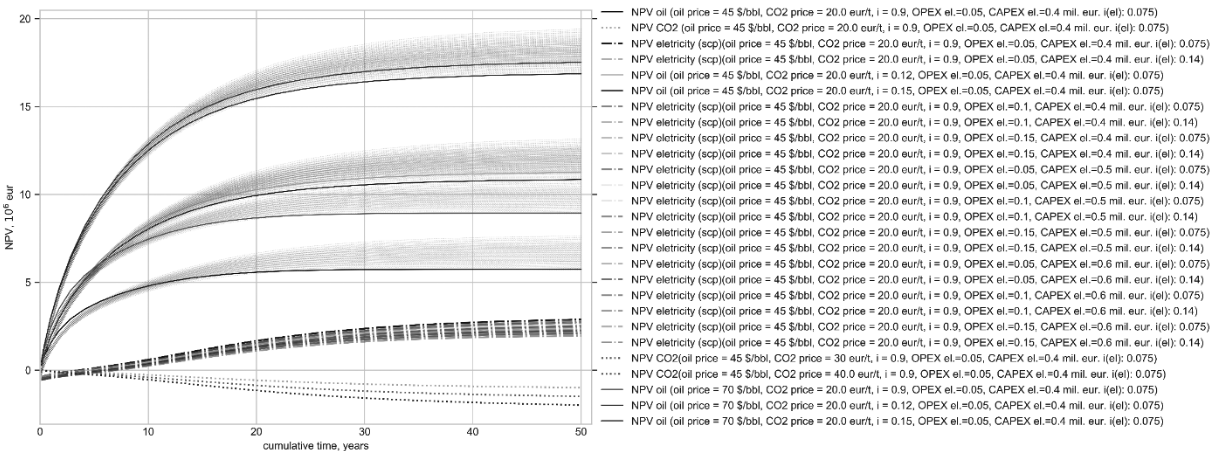


Figure 21: Net present value of flaring scenario 4

Figures (6 to 9) show results with all combinations of parameters for CO_2 storage scenarios after production from field *without measures*.

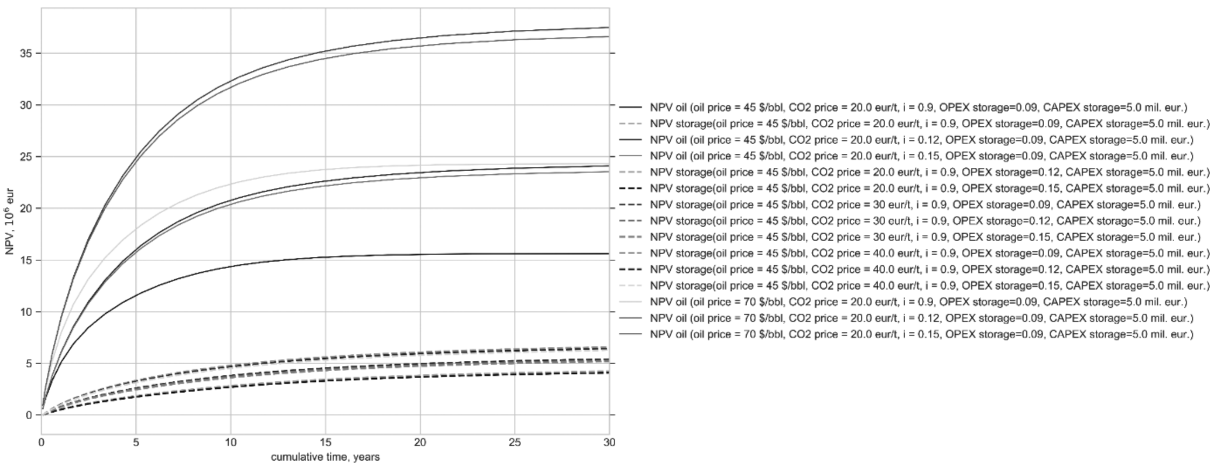


Figure 22: Net present value of storage scenario 1

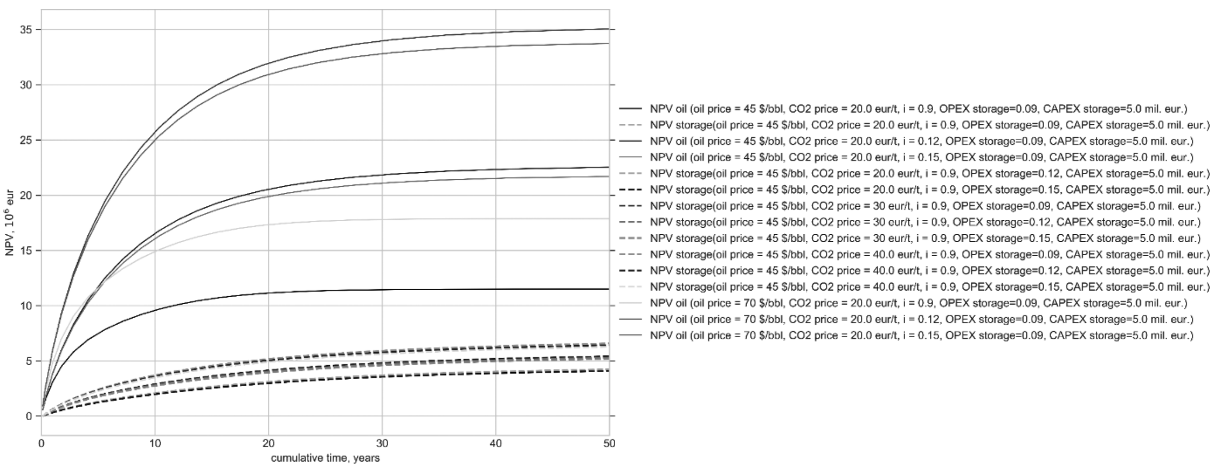


Figure 23: Net present value of storage scenario 2

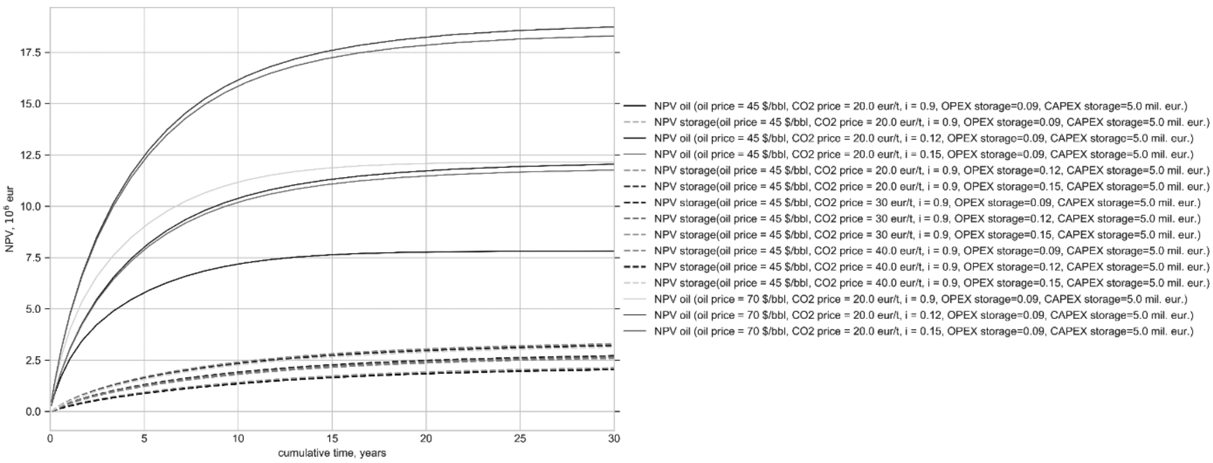


Figure 24: Net present value of storage scenario 3

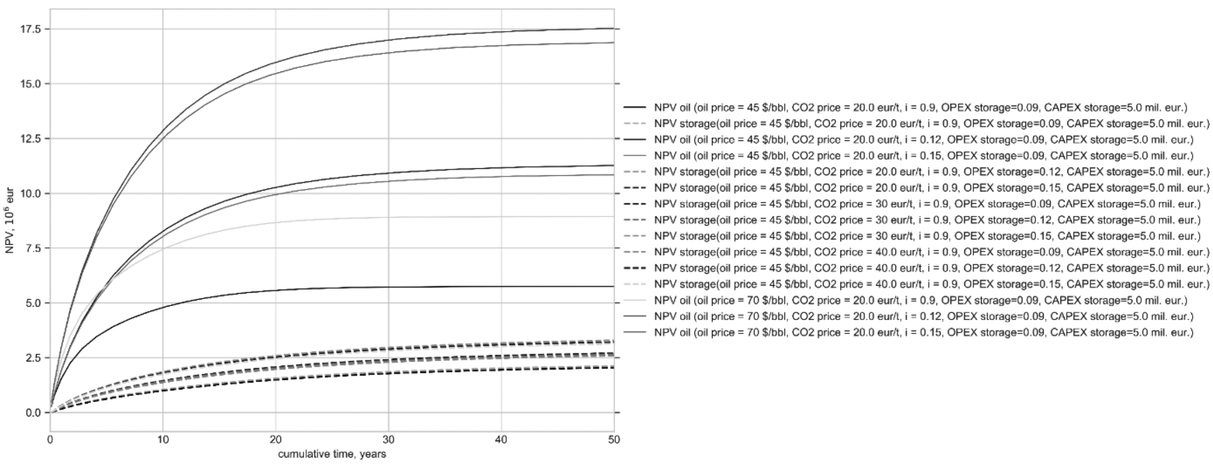


Figure 25: Net present value of storage scenario 4

Figures (10 to 13) show CO_2-EOR performance with combination of all respective input parameters (Table 11).

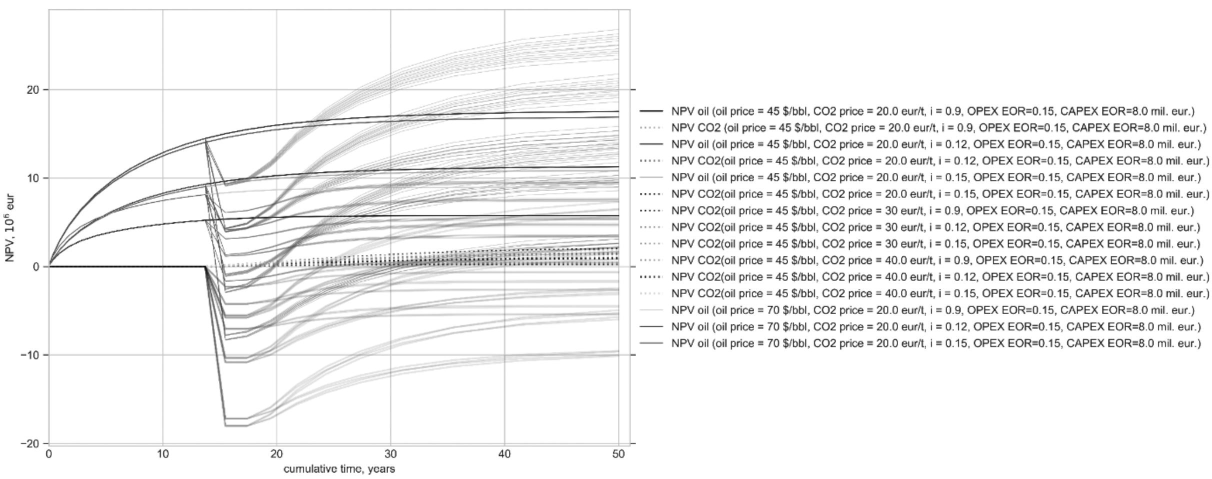


Figure 26: Net present value of EOR scenario 1

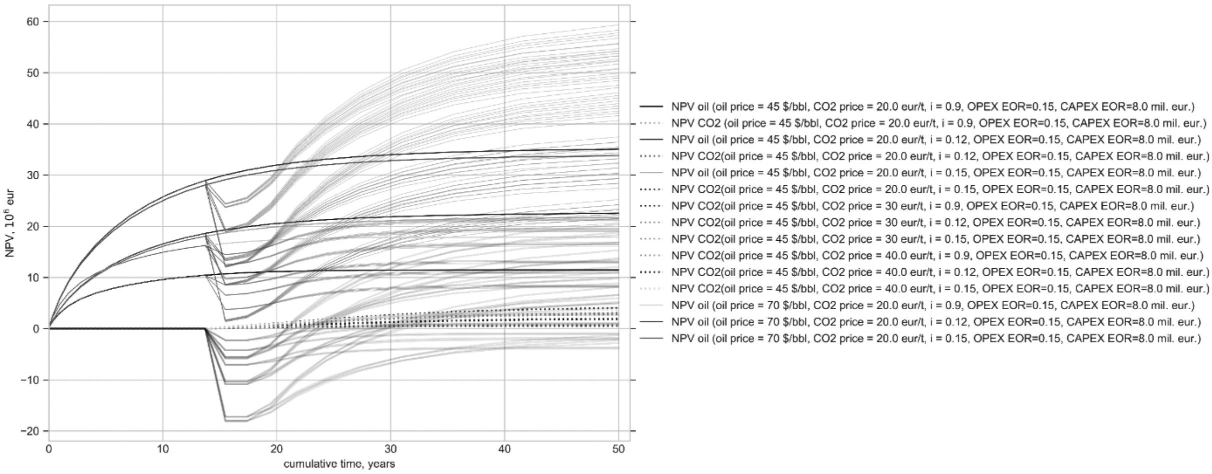


Figure 27: Net present value of EOR scenario 2

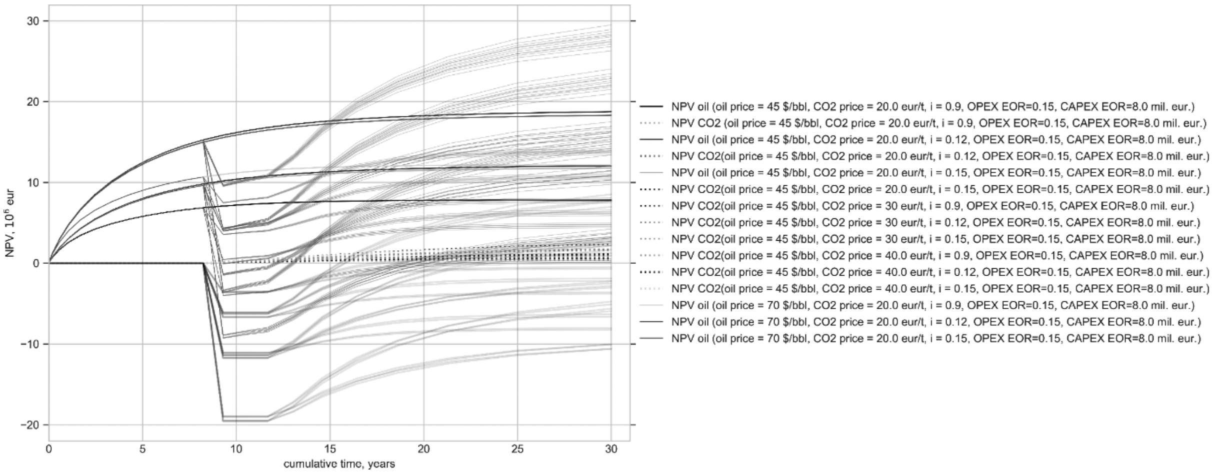


Figure 28: Net present value of EOR scenario 3

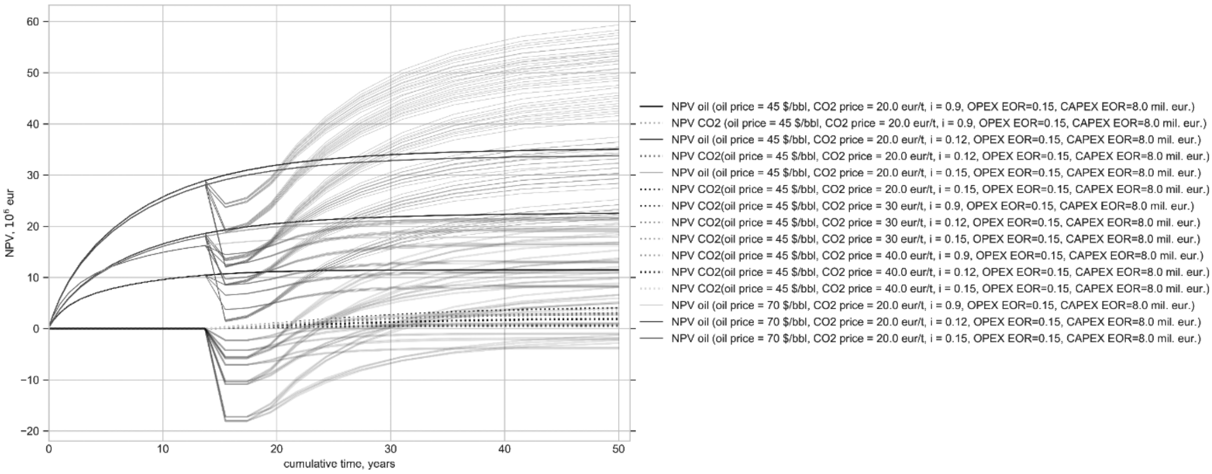


Figure 29: Net present value of EOR scenario 4

4 DISCUSSION OF THE RESULTS AND CONCLUSION

The results show that electric power generators might be feasible in case of small fields. However, in this case, the electricity demand is neglected i.e., the distance from electricity consumers is not considered. This can increase CAPEX significantly, and both the transport efficiency and the electrical grid connection can be crucial factors for implementation of simple cycle power plant.

When observing the NPV curve of CO_2 storage, it might be misleading - this NPV is achieved in a very short time, in the cases presented in this work (because of CO_2 injection rates) it is always in a less than a year. The CO_2 storage NPV curve shows how much value can be gained if the oil production is abandoned after respective number of years.

CO_2-EOR is an attractive option, but the process of CO_2-EOR project evaluation is slow and complex process, and additional recovery (AR) curve shows that it takes more than 5 years until the NPV becomes positive, which in terms of investments showed as discouraging factor for starting CO_2-EOR projects in EU.

Comparative analysis of different CO_2 storage scenarios proved that it is possible to achieve a higher profit by storing CO_2 applying CO_2-EOR methods in comparison with storage in an abandoned oil reservoir because more oil is produced and that provides greater pore volume available for CO_2 storage. Finally, it is important to point out that the application of CO_2-EOR method, besides a positive impact on the recovery and thus the revenue, also has a positive impact on the environment.

ACKNOWLEDGMENT

This research was conducted as part of the ESCOM project. Project is funded by the Environmental Protection and Energy Efficiency Fund with the support of the Croatian Science Foundation (HRZZ – Hrvatska zaklada za znanost; PKP-2016-06-6917).

REFERENCES

1) Ahmed, T. and McKinney, P., 2011. Advanced reservoir engineering. Elsevier.
2) Al-Adasani, A. & Bai, B., 2010, January. Recent developments and updated screening criteria of enhanced oil recovery techniques. In International Oil and Gas Conference and Exhibition in China. Society of Petroleum Engineers.
3) Algharaib, M. and Al-Soof, N.A., 2008, January. Economical modeling of CO_2 capturing and storage projects. In *SPE Saudi Arabia Section Technical Symposium*. Society of Petroleum Engineers.
4) Bachu, S., 2016. Identification of oil reservoirs suitable for CO_2-EOR and CO_2 storage (CCUS) using reserves databases, with application to Alberta, Canada. International Journal of Greenhouse Gas Control, 44, pp.152-165
5) Breeze, P., 2019. Power generation technologies. Newnes.
6) Calado, P.A., 2012. Modeling and design synthesis of a CCS compression train system via MINLP optimization. *Tecnico Lisboa*, pp.1-122.
7) Compernolle, T., Welkenhuysen, K., Huisman, K., Piessens, K. and Kort, P., 2017. Offshore enhanced oil recovery in the North Sea: The impact of price uncertainty on the investment decisions. *Energy Policy*, *101*, pp.123-137.
8) Ettehadtavakkol, A., Lake, L.W. and Bryant, S.L., 2014. CO_2-EOR and storage design optimization. International Journal of Greenhouse Gas Control, 25, pp.79-92.
9) Ettehad, A., Jablonowski, C. and Lake, L.W., 2010. Gas storage facility design under uncertainty. *SPE Projects, Facilities & Construction*, *5*(03), pp.155-165.
10) Ferguson, R.C., Kuuskraa, V.A., Van Leeuwen, T.S. and Remson, D., 2010, January. Storing CO_2 With Next-Generation CO_2-EOR Technology. In *SPE International Conference on CO_2 Capture, Storage, and Utilization*. Society of Petroleum Engineers.
11) Flanders, W.A., McGinnis, R.A. and Shatto, A.G., 1993, January. CO_2 EOR economics for small-to-medium-size fields. In *SPE Annual Technical Conference and Exhibition*. Society of Petroleum Engineers.
12) Fukai, I., Mishra, S. and Moody, M.A., 2016. Economic analysis of CO_2-enhanced oil recovery in Ohio: Implications for carbon capture, utilization, and storage in the Appalachian Basin region. *International Journal of Greenhouse Gas Control*, *52*, pp.357-377.
13) Gao, P., Towler, B.F. & Pan, G., 2010, January. Strategies for evaluation of the CO_2 miscible flooding process. In Abu Dhabi International Petroleum Exhibition and Conference. Society of Petroleum Engineers.
14) Gaspar, A.T.F.S., Suslick, S.B., Ferreira, D.F. and Lima, G.A., 2005, January. Economic Evaluation of Oil-Production Project with EOR: CO_2 Sequestration in Depleted Oil Field. In *SPE Latin American and Caribbean Petroleum Engineering Conference*. Society of Petroleum Engineers.
15) Jablonowski, C.J. and Singh, A., 2010, January. A survey of CO_2-EOR and CO_2 storage project costs. In *SPE International Conference on CO_2 Capture, Storage, and Utilization*. Society of Petroleum Engineers.
16) Lyons, W.C. and Plisga, G.J., 2011. Standard handbook of petroleum and natural gas engineering. Elsevier.
17) Lekić, A., Jukić, L., Arnaut, M. and Macenić, M., 2019. Simulation of CO_2 injection in a depleted gas reservoir: A case study for Upper Miocene sandstone, Northern Croatia. Rudarsko-geološko-naftni zbornik, 34(1), pp.139-149.
18) Luyben, W.L., 2018. Capital cost of compressors for conceptual design. *Chemical Engineering and Processing-Process Intensification*, *126*, pp.206-209.

19) Luo, D. and Zhao, X., 2012. Modeling the operating costs for petroleum exploration and development projects. *Energy*, *40*(1), pp.189-195.
20) Novak, K., Malvić, T. and Simon, K., 2013. Increased hydrocarbon recovery and CO_2 management, a Croatian example', Environmental Earth Sciences.
21) Novak, K. et al., 2014. Increased hydrocarbon recovery and CO_2 storage in Neogene sandstones, a Croatian example: Part II, Environmental Earth Sciences.
22) Ramagost, B.P. and Farshad, F.F., 1981, January. P/Z abnormally pressured gas reservoirs. In SPE Annual Technical Conference and Exhibition. Society of Petroleum Engineers.
23) Schilthuis, R.J., 1936. Active oil and reservoir energy. Transactions of the AIME, 118(01), pp.33-52.
24) Smith, L.A., Gupta, N., Sass, B.M., Bubenik, T.A., Byrer, C. and Bergman, P., 2001. *Engineering and economic assessment of carbon dioxide sequestration in saline formations* (No. DOE/NETL-2001/1144). National Energy Technology Lab. (NETL), Pittsburgh, PA, and Morgantown, WV (United States); Battelle Memorial Institute, Columbus, OH (United States).
25) Taber, J.J., Martin, F.D. & Seright, R.S., 1997. EOR screening criteria revisited-Part 1: Introduction to screening criteria and enhanced recovery field projects. SPE Reservoir Engineering, 12(03), pp.189-198.
26) Tayari, F., Blumsack, S., Dilmore, R. and Mohaghegh, S.D., 2015. Techno-economic assessment of industrial CO_2 storage in depleted shale gas reservoirs. *Journal of unconventional oil and gas resources*, *11*, pp.82-94.
27) Tapia, J.F.D., Lee, J.Y., Ooi, R.E., Foo, D.C. and Tan, R.R., 2016. Optimal CO_2 allocation and scheduling in enhanced oil recovery (EOR) operations. Applied energy, 184, pp.337-345.
28) Tracy, G.W., 1955. Simplified form of the material balance equation. Technical note, Petroleum Branch Office, SPE 438-G, vol 204. 1955
29) Vulin, D., Saftić, B. and Macenić, M., 2018. Estimate of dynamic change of fluid saturation during CO_2 injection—Case study of a regional aquifer in Croatia. Interpretation, 6(1), pp.SB51-SB64.
30) Vulin, D.; Saftić, B.; Karasalihović Sedlar, D.; Perković, L.; Macenić, M.; Jukić, L.; Lekić, A.; Arnaut, M., ESCOM project - Evaluation system for CO_2 mitigation. Nafta i plin, 38, 2018, 23-35
31) Yin, M., 2015. CO_2 miscible flooding application and screening criteria.

ANALYSIS OF THE EUROPEAN UNION COUNTRIES ON THE BASIS OF SELECTED MACROECONOMIC INDICATORS USING THE DISTANCE METHOD FROM THE FICTITIOUS OBJECT*

Ľubica Hurbánková[1]
Dominika Krasňanská[2]

DOI: https://doi.org/10.31410/EMAN.2019.717

Abstract: *The aim of the paper is to compare the European Union countries on the basis of selected socio-economic and demographic indicators for the year 2016. The following indicators are selected for analysis: gross domestic product per capita, government gross debt as a percentage of gross domestic product, inflation rate, unemployment rate, total fertility rate, infant mortality rate and crude divorce rate.*

The contribution of the paper is the order of countries on the basis of the above-mentioned indicators, from the best country to the worst country using one of the multidimensional comparison methods – the distance method from the fictitious object. The aim of these methods is to replace a number of selected indicators, on the basis of which we compare EU countries, with one final characteristic – an integral indicator to order the countries. By creating an integral indicator, heterogeneous variables, which are expressed in different units and therefore can′t be direct aggregated, are transformed to homogeneous indicators. Since the used indicators do not have the same weights, by the calculation are used the data weighted by weights I (calculated using the coefficient of variation) and weights II (calculated on the basis of the correlation matrix).

The application of individual statistical methods is implemented through the programme Microsoft Office Excel.

Keywords: *Distance method from the fictitious object, European Union countries*

1. INTRODUCTION

Oftentimes, it is not enough to pay attention to only one characteristic in the analyzed file, but it is desirable to examine the file from several aspects, represented by multiple statistical character, taking into account its multiple characteristics [1]. In this analysis, it is necessary to use multidimensional comparison methods – the weighted sum order method, the scoring method, the method of standard variable and the distance method from the fictitious object. The aim of these methods is to replace several selected indicators by which we compare the selected objects – in our case the EU countries, one final characteristic – an integral indicator, based on which we rank selected objects.

In the paper is used one of the multidimensional comparison method – the distance method from the fictitious object – to compare the EU countries on the basis of selected socio-economic and demographic indicators (gross domestic product per capita, government gross debt as a percentage of gross domestic product, inflation rate, unemployment rate, total fertility rate, infant mortality rate and crude divorce rate).

---

* This paper was supported by the Grant Agency of Slovak Republic – VEGA grant No. 1/0248/17 „Analysis of Regional Disparities in the EU based on Spatial Econometric Approaches".

[1] University of Economics in Bratislava, Dolnozemská cesta 1, 852 35 Bratislava, Slovak Republic
[2] University of Economics in Bratislava, Dolnozemská cesta 1, 852 35 Bratislava, Slovak Republic

This method is applied using three types of weights – in the first case without weight determination. In the second case, weights are calculated using the coefficient of variation, and in the last case we determine the weights based on the correlation matrix [2], [3].

2. DISTANCE METHOD FROM THE FICTITIOUS OBJECT

The distance method from the fictitious object is based on the comparison of the individual objects of the file with the so-called a fictitious object that represents an abstract model and achieves the best values for all selected indicators – in the case of stimulating indicators (the desirable value is the highest value) the maximum value and in the case of destimulating indicators (the desirable value is the lowest value) the minimum value [4].

The first step in this method is to calculate arithmetic averages and standard deviations for selected indicators. In the next step, we must transform all indicators into a standard shape to eliminate the problem of different measurement units of the selected indicators. Then we compute an integral indicator, which expresses the Euclidean distance of each selected object (the EU country) from the fictitious object [5]:

$$d_i = \sqrt{\frac{1}{k}\sum_{j=1}^{k}\left(z_{ij} - z_{0j}\right)^2 v_j} \tag{1}$$

where: d_i is an integral indicator,
z_{ij} is the normalized shape of the *j*-th indicator in the *i*-th object,
z_{0j} is the normalized shape of the "best value" of the *j*-th indicator,
v_j is the weight of the indicator,
k is the number of indicators.

The last step in the distance method from the fictitious object is the determination of the resulting order of the objects, which is determined by the fact that the best object is the object with the smallest distance from the fictitious object – object with the smallest value of the integral indicator. The smallest value, which one object can achieve, is zero. An object that would achieve this value would have to achieve the best values in all selected indicators, it means that a fictitious object would be constructed from its values. The object in the first place will be the one that has the smallest distance from the fictitious object. The object that has reached the biggest distance from the fictitious object will be on the last place.

The distance method from the fictitious object as the only one of the methods of multi-criteria evaluation works with squares of deviations, which implies that the results of evaluation always take negative values. This method allows you to compare objects by rate; we can determine how many times the value of the indicator in country *X* is higher or lower than in country *Y* [6].

3. INPUT DATA

We have selected 28 member countries of the European Union for the analysis. We will make a comparison of the selected countries with the use of 7 socio-economic and demographic indicators for the year 2016. The Eurostat website will serve as a source of the data. We will also briefly define the selected indicators:

Gross domestic product per capita – the ratio of gross domestic product and average population in the year. Gross domestic product is an indicator for a nation´s economic situation. It reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in their production. Calculations on a per head basis allows for the comparison of economies significantly different in absolute size [7].

General gross debt as a percentage of gross domestic product – represents the total general debt as a share of GDP in percent. It is made up of government commitments and is generated by a deficit financing of the state budget [8].

Inflation rate – is defined as the devaluation of the monetary unit, which is manifested by the persistent growth in the price level of products and services in the economy [9].

Unemployment rate – represents unemployed persons as a percentage of the labour force. The labour force is the total number of people employed and unemployed. The indicator is based on the EU Labour Force Survey [10].

Total fertility rate – the mean number of children that would be born alive to a woman during her lifetime if she were to survive and pass through her childbearing years conforming to the fertility rates by age of a given year [11].

Infant mortality rate – the ratio of the number of deaths of children under one year of age during the year to the number of live births in that year. The value is expressed per 1 000 live births [12].

Crude divorce rate – is the ratio of the number of divorces during the year to the average population in that year. The value is expressed per 1000 persons [13].

4. APPLICATION

Input indicators do not have the same weights, so we need to use weighted data in the calculations (Table 1):

- Weights I – weights calculated using the coefficient of variation,
- Weights II – weights calculated on the basis of correlation matrix.

Table 1: Weights calculating. Source: own calculations

Indicator	Weights I	Weights II
Gross domestic product per capita	0,2080	0,2154
Government gross debt as a percentage of GDP	0,1691	0,0565
Inflation rate	0,2138	0,1761
Unemployment rate	0,1594	0,1473
Total fertility rate	0,0341	0,2831
Infant mortality rate	0,1170	0,0106
Crude divorce rate	0,0986	0,1110
Total	1,0000	1,0000

The essence of this method is to compare individual objects with so-called fictitious object. A fictitious object is an abstract model that achieves the best value for all indicators.

The countries such as the Netherlands, Ireland and Luxembourg rank among the top three places in the application of the distance method from the fictitious object without using weights (Figure 1). On the last places are Portugal, Hungary and Greece. The Slovak Republic is on the 20th place. The other V4 countries rank as follows: the Czech Republic 14th place, Poland 15th and Hungary 27th.

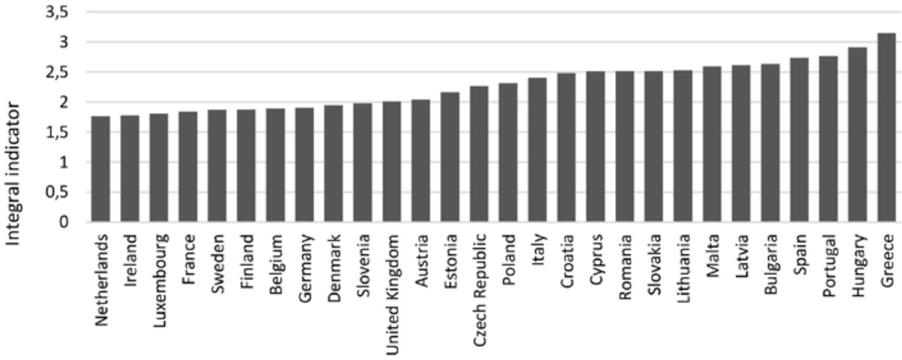


Figure 1: Country ranking without weights
Source: own calculations

If we applied weights I (Figure 2) – the weights calculated using the coefficient of variation, on the first place is Luxembourg, followed by Finland, third is the Netherlands. Hungary was placed last. The Slovak Republic ranks 21th place. The best from the V4 countries is Poland on the 14th place, the Czech Republic is on the 16th place.

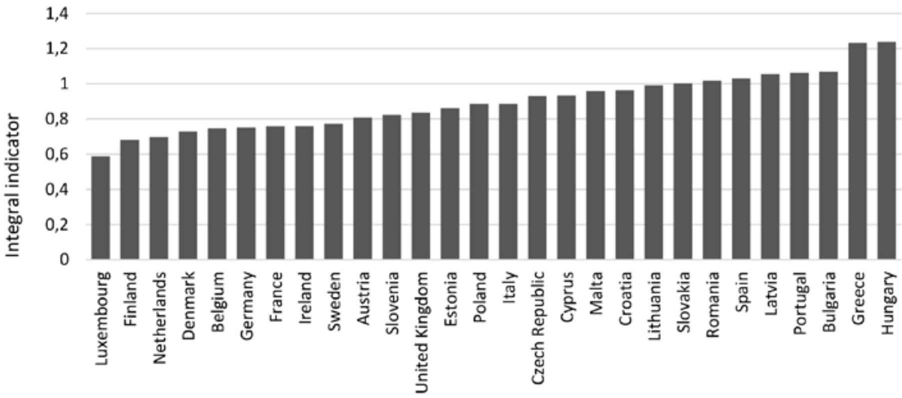


Figure 2: Country ranking with weights I
Source: own calculations

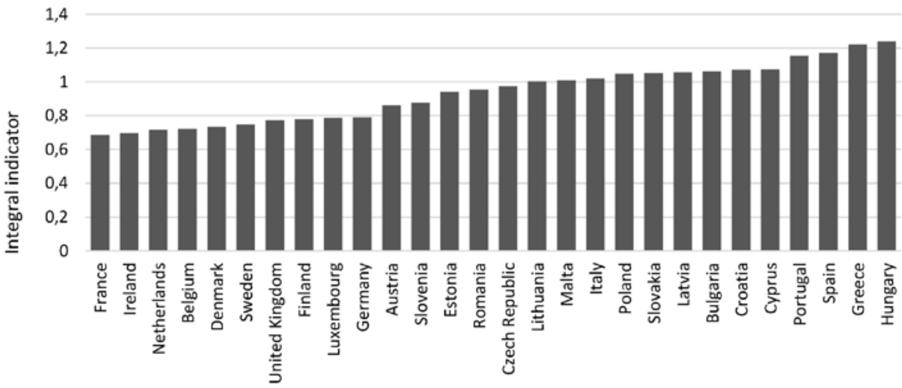


Figure 9: Country ranking with weights II
Source: own calculations

The results of applying the weights II (Figure 3), which we calculated on the basis of the correlation matrix, did not change significantly compared to the previous results. On the first places are France, Ireland and the Netherlands. On the last places are Spain, Greece and Hungary. The Slovak Republic is on the 20th place (similar to calculating without using weights). The ranking of other V4 countries is as follows: the Czech Republic is on the 15th place, Poland on the 19th.

5. CONCLUSION

The aim of the paper was to tank the European Union countries on the basis of selected socio-economic and demographic indicators: gross domestic product per capita, government debt as a percentage of gross domestic product, inflation rate, unemployment rate, total fertility rate, infant mortality rate and crude divorce rate. In the analysis, we used one of the multidimensional comparison methods – the distance method from the fictitious object. Analyze was realized on data from year 2016 from Eurostat´s website.

Using the distance method from the fictitious object on the first places are countries such as the Netherlands, Luxembourg, Ireland, France and Finland. It was Finland that was the first world country to give women the right to vote. The Netherlands, together with Luxembourg, belong to the founding members of the European Union. The largest beer exporter in Europe and also the country with the largest natural gas reserves is also the Netherlands. As one of the few countries stood Luxembourg at the birth of the United Nations and NATO. The ranking of France among the top countries could also affect the fact that in 2016 public administration, defense, education, health, wholesale and retail trade were among the most important sectors of the economy. One of the factors that may have influenced the order of the countries may be their location, as these countries are relatively close to each other.

Among the worst countries according to the analysis, we include Greece, Hungary, Portugal, Bulgaria and Spain. Greece faces a long-standing economic problem. However, at the time of joining the European Union, Greece did not meet one of the Maastricht criteria, namely indebtedness and nevertheless entered the European Union. Spain has huge problems with unemployment. Up to about 52% of young people in Spain are out of work. Unemployment in Spain has many reasons, one of which is the over-regulation of the labour market. Its regulations have been created to protect workers, but in fact it only protects the unemployed from getting jobs. Another reason is the long-term low growth of the Spanish economy. Portugal, like Spain, has a big problem with unemployment. Youth unemployment was up to 40% in 2013. In addition to the selected socio-economic and demographic indicators themselves, factors such as the geographic location of the countries, as well as the year of accession to the European Union, could also influence the order of the countries.
From the V4 countries on the first and second place alternate Czech Republic and Poland. Slovakia ranked third in the application of three types of weights and Hungary ranked last.

When we compare the results of using weights, we reached approximately the same results.

REFERENCES

[1] Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. *Multivariate data analysis*. New York: Macmillan Publishing Company.
[2] Dufek, J. & Minařík, B. (1984). Poznámka ke stanovení vah ukazatelu. *Statistika*, 11, 486-489.
[3] Křovák, J. & Študlar, J. (1983). Metody stanovení vah ukazatelu. *Statistika.* 12, 543-550.
[4] Jílek, J. (1996). *Metody mezinárodního srovnávaní.* Praha: Vysoká škola ekonomická.
[5] Vojtková, M. & Stankovičová, I. (2007). *Viacrozmerné štatistické metódy s aplikáciami*. Bratislava: Iura Edition.
[6] Pažitná, M. & Labudová, V. (2007). *Metódy štatistického porovnávania*. Bratislava: Vydavateľstvo EKONÓM.
[7] https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00001&plugin=1
[8] Gola, P. (2009, April 27) *Veřejné dluhy ve světě – Česko si zatím stojí dobře.* Retrieved February 28, 2019 from <http://www.finance.cz/zpravy/finance/217869-verejne-dluhy-ve-svete-cesko-si-zatim-stoji-dobre>
[9] Šenkýřová, L. (2010, September 20) *Čo znamená často skloňovaný pojem inflácia?* Retrieved February 28, 2019 from <http://www.finance.sk/spravy/finance/35273-co-znamena-casto-sklonovany-pojem-inflacia/>
[10] https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=tepsr_wc170&language=en
[11] Jurčová, D. (2002) *Krátky slovník základných demografický pojmov*, Bratislava, Výskumné demografické centrum, pp. 37.
[12] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_minfind&lang=en
[13] https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tps00206&language=en

THE INFLUENCE OF PRODUCT LIFETIME ON REMANUFACTURING OF VEHICLE COMPONENTS

Ahmet Toptas[1]
Milan Fekete[2]

DOI: https://doi.org/10.31410/EMAN.2019.723

Abstract: *Improving the component quality of vehicles, machinery and equipment eliminates the need for remanufacturing of these components. In the article, we discuss the possible failure of vehicle components in product lifetime and the relation to remanufacturing. We tried to find an answer to the basic question of what influence has the development of the lifecycle of passenger cars and the changes of the main failure components on the need for remanufacturing. Statistical data as demographic, vehicle population and vehicle failure rates have been applied. In addition, the failure probabilities of cars and their components were determined. Our research shows, that in case the companies (OEM) want to act in an ecologically sensible way, they have two options. First option is, in case the components do not achieve the required service life, the companies should keep them as a guarantee. Second option is to cover 80% of the required components by remanufacturing solutions, whereby the components' price is max. 80% of the new parts' price over a period of up to 15 years after the end of the OEM production must be made available. Electro mobility and autonomous driving can have a positive or negative effect to remanufacturing. Which effect will appear is dependent on fulfillment of requirements of robust design and capable processes according to ISO 26262.*

Keywords: *Passenger Car Lifecycle, Vehicle Component Failure, Remanufacturing, Autonomous Driving, Electro Mobility*

1. INTRODUCTION

Remanufacturing helps to carry out a more sustainable consumption of natural resources and to reduce associated environmental damage. Remanufacturing also mitigates the growing risks for the economy due to higher material costs and supply bottlenecks and downtimes. The changes in recent years, such as quality improvement of passenger cars (PKW), electromobility or autonomous driving must be repeatedly assessed relating to the impact on remanufacturing.

The objective of the article is to evaluate the development in the lifetime of passenger cars in recent years, to identify the main failure components and finally to describe the influence on remanufacturing. In order to accomplish this objective, the following questions are to be answered:

- What is the development of the lifecycle of passenger cars in recent years?
- What are the main failure components and the relation to remanufacturing?
- What influence has the development of the lifecycle of passenger cars and the changes of the main failure components on the need for remanufacturing?

[1] Comenius University in Bratislava, Faculty of Management, Department of Strategy and Entrepreneurship, Odbojarov 10, Bratislava 820 05, Slovakia

[2] Comenius University in Bratislava, Faculty of Management, Department of Strategy and Entrepreneurship, Odbojarov 10, Bratislava 820 05, Slovakia

2. RESEARCH METHODS

Research methods in the sciences procedures and analysis techniques are designate and serve to clarify scientific questions. Especially in the social sciences, the distinction between quantitative research methods and qualitative research methods is familiar. "The empirical methods are, in the broadest sense, experiential procedures. The word empiric comes from the Greek word "empeiria" and means something like "experience" "[16].

The quantitative methods in empirical social research include all approaches to the numerical representation of empirical facts, but also to support the conclusions of the empirical findings with tools of inferential statistics [10]. Quantitative methods include sample selection, data collection and analysis. Thus, empirical results, as presented in this work, represent causal relationships that relate to years of experience and in a correlation represent the issues of failures and remanufacturing of vehicle components. As [10] suggests, causal relationships should be "carefully described, ordered and quantified", which is the case in this article.

The following research methods are used in the article:

- Application of statistical methods used in the evaluation of development of population, vehicle population and vehicle failure rates. In addition, the failure probabilities of various components were determined or assessed.
- The qualitative literature research provides a solid foundation with the latest and groundbreaking studies on remanufacturing, and thus a better understanding of what is already known about this topic.
- Empirical data has been collected over the past 5 years through interviews and discussions with customers and employees in Bosch Company. In doing so, it was possible to record objective facts and also to record opinions and attitudes. There are possible disadvantages, e.g. only verbal information were given.

3. PRODUCT LIFE-CYCLE MANAGEMENT

Production is also referred to as manufacturing or processing, especially of items. In legal linguistic usage, manufacturing is the process of transformation effected by man's work, which produces products (economic goods) or commodities from natural as well as already produced raw materials, using energy and certain means of production that can be stored.

The term production refers to the production of goods in general. Goods are generally divided into primary production (primary sector of the economy), i.e. production of assets from natural resources and the production of goods.

The terms manufacturing or fabrication are limited to craft and industrial goods and merchandise.

Many terms, such as value chain, shop-floor chain, transport chain or supply chain are used in the literature as synonyms. The value chain thus includes the components of logistics, production and information.

Product Life Cycle Management (PLCM) refers to a strategic approach to managing products throughout their product lifecycle, which must be implemented on a business-to-business basis through appropriate technical and organizational rules. With its interdisciplinary approach, it is

a key success factor for the conception and realization of cost-optimized and customer-specific products and solutions for both original equipment as well as spare parts [11].

At the same time, it forms the interface for all areas of product management and for the need of spare parts for timely securing post-series supply and failure management. As can be seen from the Figure 1, the remanufacturing platforms are already being developed in the series phase (two to three years after the start of production). The foundations have already been laid by means of a remanufacturing concept in the development phase. The timing of the spare parts requirement is very much dependent on the quality of the components and thus on the failure rate of the products. Several thousand vehicle components were used for the analysis. The result of the analysis shows that most products fail in significant quantities until 5-8 years, and the need is high enough to make remanufacturing meaningful. Early failures detected in the first 4 years can be provided more economically by the series parts.

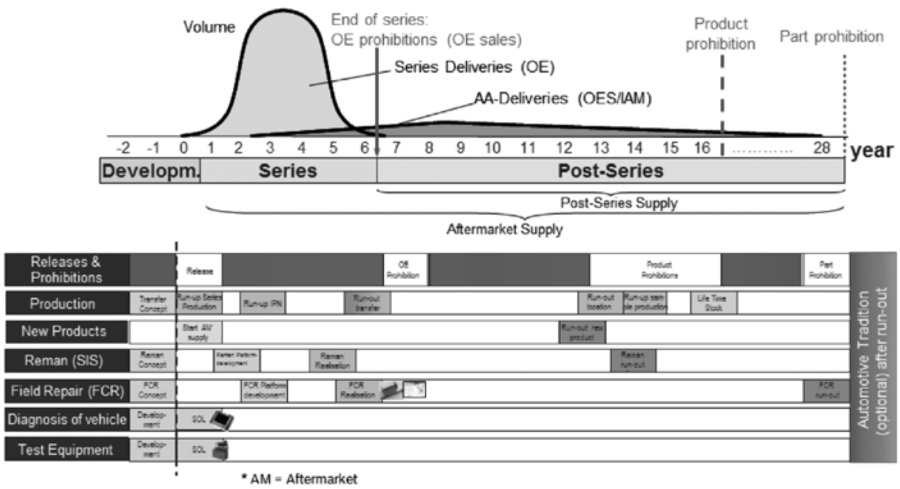


Figure 1: Product Life-Cycle Management [11]

Whether there is a need for remanufacturing components or not depends on two essential parameters. First, the lifecycle of the vehicles and second, the lifecycle of the components used in the vehicle. If the lifecycle of a vehicle is less than that of its components, then there will be no need for spare parts components. If the lifecycle of a vehicle is longer than that of its components, then there will be a need for spare parts components that must be covered by either new parts or remanufactured parts. Therefore, in the following parts of this article, the lifecycle of cars is analyzed and evaluated.

2.1 Description of the failure rate

The failure rate is a parameter for the reliability of an object. It indicates how many objects fail on average over a period of time. It is given in 1 / time, i.e. failure per period. A special failure rate unit is Failure In Time (FIT) with the unit failures per 10^9 hours.

When considering a car as a system, the failure of one system part (engine, transmission, brake, ...) can turn off the entire system. A failure is decisive for the system failure. The weakest chain link determines the strength of the entire chain.

A typical failure rate, as seen in many technical applications, has the form of a bath-tube, which is why this curve is called the „bath-tube curve” [8]. The Weibull distribution is a special form of distribution that can be used to statistically assess failure probabilities in systems.

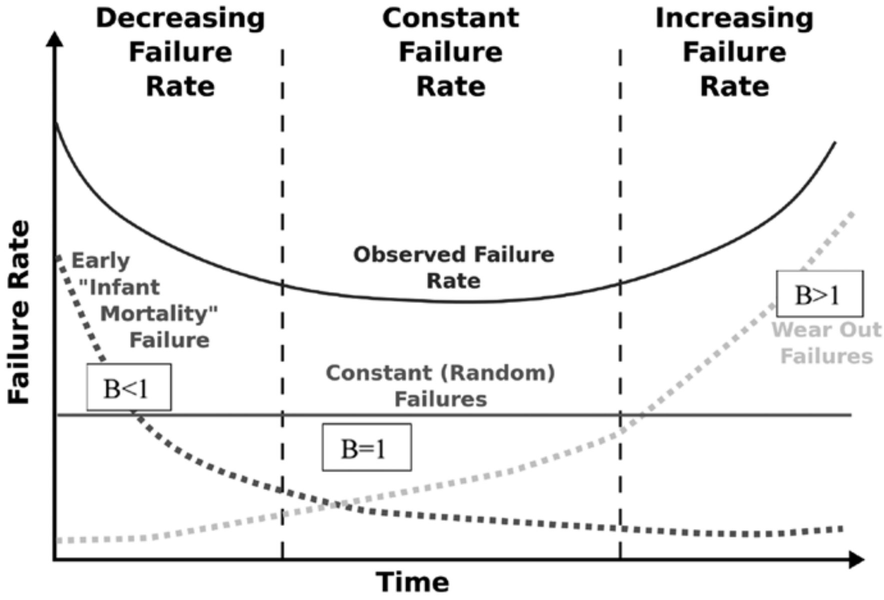


Figure 2: Failure rate depending on the shape parameter [14]

The bath-tube curve can be used to describe the failure behavior in three phases of this curve, the shape parameter B can be used to model whether early or late failures occur more frequently:

- Early failures: decrease with increasing lifecycle
  - can be caused by production errors
  - the failure rate decreases randomly
  - Example: Soft solder joints, which are cold solder joints due to a lack of soldering flux, have in fact contact during putting into service, but loose contact after a short time (no/sometimes contact)
  - B < 1
- Random failures: Constant lifecycle
  - there is almost no wear
  - the failure rate is constant over lifecycle
  - Example: the total failure of a new, running-up car (scrap ready) occurs only as a result of an accident
  - B = 1
- Late failures: Wear failures
  - increase with increasing lifecycle, it comes to increasing aging wear
  - the failure rate increases again
  - wear of carbon brushes in starters, regulators, bearing wear, etc.
  - B>1

The failure rates of components are already very low as a result of the quality progress made in recent years and will be significantly reduced in the coming years due to the requirements of ISO 26262 [8]. According to [5] and Automotive Safety Integrity Level (ASIL) classification the following failure probabilities are recommended:

- ASIL A: probability of failure less than 10^{-6} /hour, equivalent to a rate of 1000 FIT
- ASIL B: probability of failure less than 10^{-7} /hour, equivalent to a rate of 100 FIT
- ASIL C: probability of failure less than 10^{-7} /hour, equivalent to a rate of 100 FIT
- ASIL D: probability of failure less than 10^{-9} /hour, equivalent to a rate of 1 FIT

3. WHAT IS THE DEVELOPMENT OF PASSENGER CAR LIFECYCLE IN RECENT YEARS?

Before answering the question as to how the development of the lifecycle of passenger cars has been in recent years, the question must be answered as what was the development of vehicle demand in Germany.

3.1 Development of vehicle demand in Germany

The population in Germany has been stable in recent years with about 81 million people. With this stable population, the number of registrations was the answer to the economic and political factors with an average of 3.2 million vehicles each year. This corresponds to an annual rate of 4% new vehicle registrations and means an average car lifecycle of approximately 14.5 years. With this fleet Germany alone has about 46.5 million vehicles, which must be driven, maintained and scrapped at the end of its lifecycle [9].

Table 1: New registrations in Germany [15]

Number of new vehicle registrations in Germany from **2007 to 2017 (in millions)**											
Year	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Number in millions	3,44	3,35	3,21	3,04	2,95	3,08	3,17	2,92	3,81	3,09	3,15

3.2 Assessment of „e-mobility” and „autonomous driving“

The technological changes in the vehicle market have been very rapid in recent years. Currently, two topics are very dominant and also discussed very controversially. The following questions are to be evaluated in the article context:

- What development will electric and hybrid vehicles make over the next few years?
- Will autonomous driving noticeably reduce the number of vehicles in the streets?

As can be seen from Figure 3, the global car population of cars will still increase from 911 million in 2016 to 1,124 million. During this period, both the useful lifecycle of the cars and the annual production volume from 73 million in 2016 to 81 million will increase. The average rate of increase between 2016 and 2024, at 1.7%, is slightly lower than that for 2010-2024 at 2.4%.

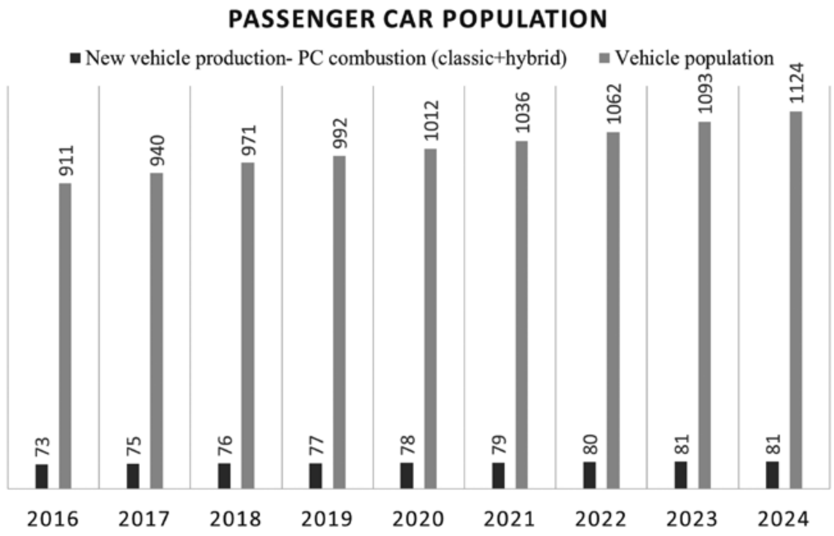


Figure 3: Passenger Car Population [12]

From the passenger car population (Figure 4), the vehicles relevant to Bosch (approx. 95 million to 115 million) were determined and assigned to the respective categories. From this it can be seen that the share of electric vehicles (EV) will increase to about 8% by 2024. At 21%, the number of hybrid vehicles will be much stronger than that of electric vehicles. This means that in 2024 Bosch vehicles that are still relevant will still be equipped with combustion engines. More importantly, these technical changes will not have a negative impact on the series repair of vehicles, since the electric motors are technologically similar to starters and generators, and thus the series repair of electric vehicles will have a positive contribution to the ecology and macroeconomics.

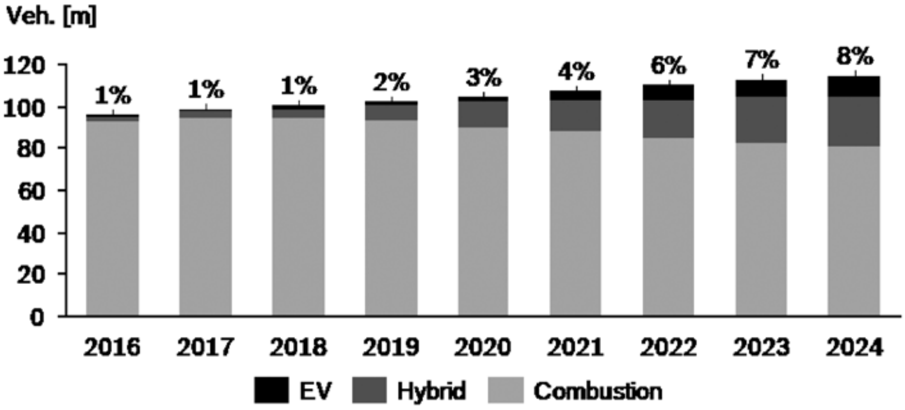


Figure 4: Distribution of vehicles in EV, hybrid and combustion [12]

3.3 Service lifecycle of passenger cars in Germany

On 1 January 2018, approximately 46.5 million cars were registered in Germany. Of these, about 13.5% are under 2 years, about 17% between 2 to 4 years and about 28.6% (13.3 million) between 5 and 9 years. Thus, in total about 59% of passenger cars are younger than 10 years old [9]. Thus, about 41% of the cars are 10 years or older and thus very interesting for the remanufacturing market.

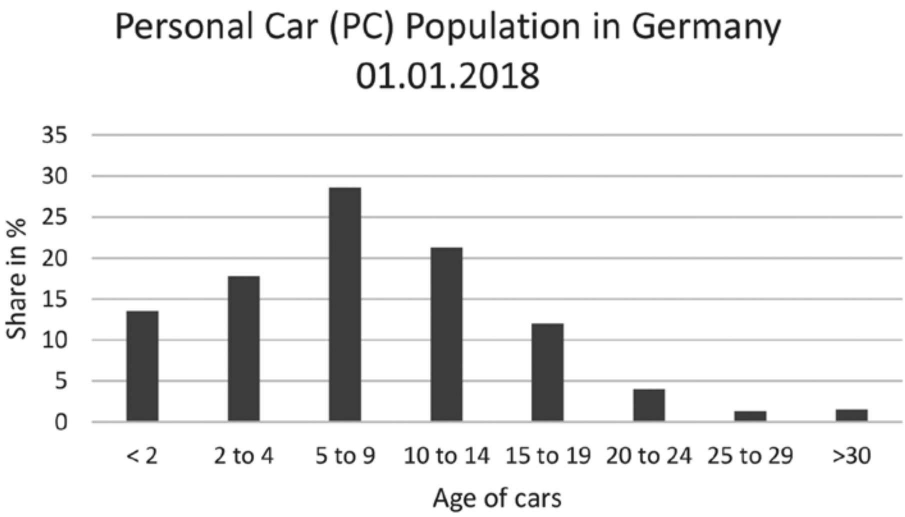


Figure 5: Stock of passenger cars [12]

The average age of the registered passenger cars was 9.4 years and has therefore risen again compared to the previous year (9.3 years). There are several reasons for the outlined development:

- First and foremost, of course, is the technical progress that has successively led to a longer „durability" of new cars. This applies e.g. for bodywork (improved rust protection) or engine and transmission technology. They allow a longer service lifecycle and

mileage of the car. Thanks to this improved vehicle quality, motorists can increasingly delay the purchase of a new car.

- Another reason for the rising average age of car stocks is also the higher list prices for new cars. This price increase is likely to cause many private car buyers to use their cars longer and to accept also in older cars repair and maintenance costs. The striking growth in average new car prices is due to the fact that the share of commercial customers in new passenger car registrations in Germany has risen in recent years. Many commercial customers are more likely than private car buyers to purchase better-equipped and therefore higher priced cars. If these cars come after a certain time on the secondary market, they are for many private customers a lucrative alternative to buying new cars.
- A sensible alternative to regulate the CO2 emissions of road traffic would also be in addition to the reduced cars‘ usage the use of remanufactured products.

3.4 Lifecycle of cars in USA

For years, quality statistics on the quality of vehicles (cars, commercial vehicles) are maintained and updated annually. The general trend of the complaint rates is declining. As can be seen from the study of June 17th, 2010, the vehicles (cars, commercial vehicles) in 1999 caused, depending on the manufacturer, European and Asian vehicles 150 problems and the US 177 problems related to 100 vehicles. These values have steadily declined in recent years. In 2010, the number of problems was only 108 or 109 problems per 100 vehicles [6].

Figure 6: Initial Quality of U.S. and Import Brands, 1999-2010 [6]

Vehicle manufacturers, whether they are from the US, Europe or Pacific Asia, have been able to reduce the initial errors, although in the past 10 to 15 years the complexity of vehicles has increased significantly.

In addition, the quality requirements of customers are constantly increasing, so that the warranty periods have been increased in recent years from 2 to approximately 7 years. Car manufacturers have huge budgets for the design, engineering, production and marketing of new models and are mastering these initiatives with improved quality rates in the field.

Having a strong quality image is necessary for automakers to be able to compete in the market today, both in the United States and globally. The initial quality is the first indication of how the vehicles will behave over their lifetime.

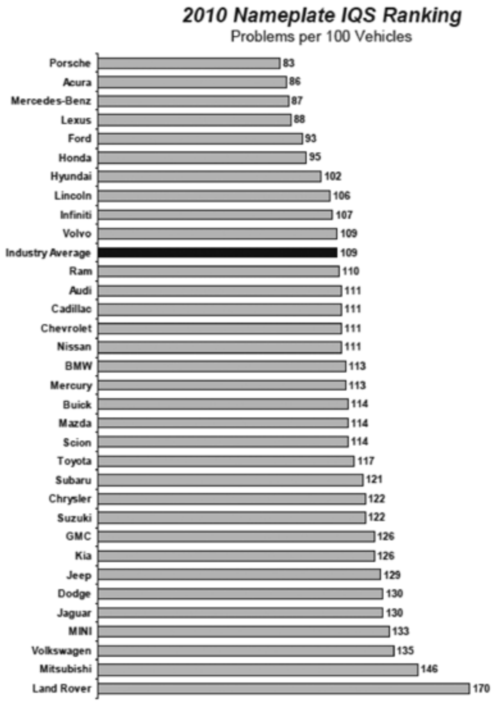


Figure 7: IQS Ranking 2010 [6]

According to [6] we can find the rank order. Ranking is based on numerical scores, and not necessarily on statistical significance, nor as a statistic on quality over the life of vehicles.

The study was also conducted in 2014 and published on June 18th, 2014. It represents the number of problems experienced by owners of a new vehicle, which has increased compared to the previous year. It shows that in recent years, the problems experienced by vehicle owners during the first 90 days of ownership have grown steadily.

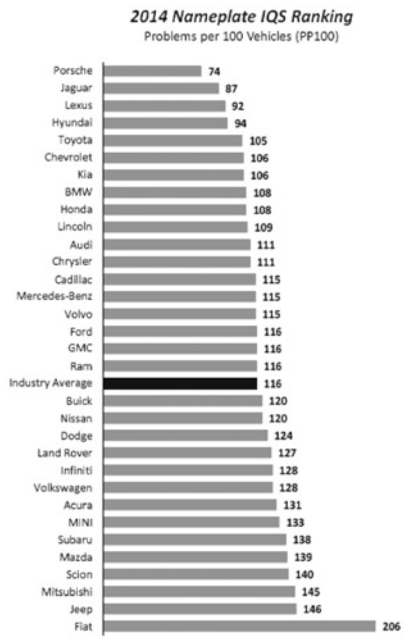


Figure 8: IQS Ranking 2014 [7]

The study shows that the average initial problems in 2014 is 116 PP100 (parts per million), 3% higher than in the previous year, with 113 PP100 initial problems.

The study identifies two primary causes for the increase in 2014:

- Firstly, recently launched vehicles seem to be more problematic than prolonged vehicles. On average, recently launched vehicles undergo 128 PP100s compared to 113 PP100s for extension vehicles. The increase in problems among fully new vehicles is mainly found in the areas of voice recognition, Bluetooth pairing and audio systems. Automobile manufacturers are trying to convince consumers with new vehicle techniques and features without introducing additional quality issues into their vehicles, but these techniques are very difficult to understand and use.
- Second, weather influences have a negative impact on quality. In some areas, increases in problems are due to exacerbations of weather conditions. Consumers in the country's southern and western regions report the same level of problems as in 2013 (114 PP100). In contrast, consumers in the Northeast and Midwest regions report an increase to 117 PP100 in 2014, compared to 112 PP100 in 2013. The majority of this increase is found in the HAVAC (heating/air ventilation/air conditioning), Exterior and Engine / Transmission categories in which hard weather conditions have a detrimental effect on vehicles. Although the car manufacturers are testing the vehicles under „worst-case conditions", it is impossible to completely avoid the effects of the severe weather.

4. WHAT ARE THE MAIN FAILURE COMPONENTS AND THE RELATION TO REMANUFACTURING?

The longevity of cars causes more components wear out during their lifecycle as it was planned or even not planned as the useful lifecycle of the cars is higher than they are designed. For younger cars (0 to about 5 years), the wearing parts are usually replaced expertly in the car service centers within the regular maintenance intervals. For these cars, customers either have warranty claims or warranty agreements that ensure the timely replacement of components. For the cars older than 5 years, a preventive exchange is rather not carried out and thus these cars fall under the breakdown statistics. With age, the risk of breakdown increases. According to [1], "the likelihood of a three-year-old car is still 1.7%, it rises to 7.1% after 13 years. Only from the Youngtimer age (20 years), the number of breakdowns decreases again, because the old sweethearts are better maintained and driven less" [1].

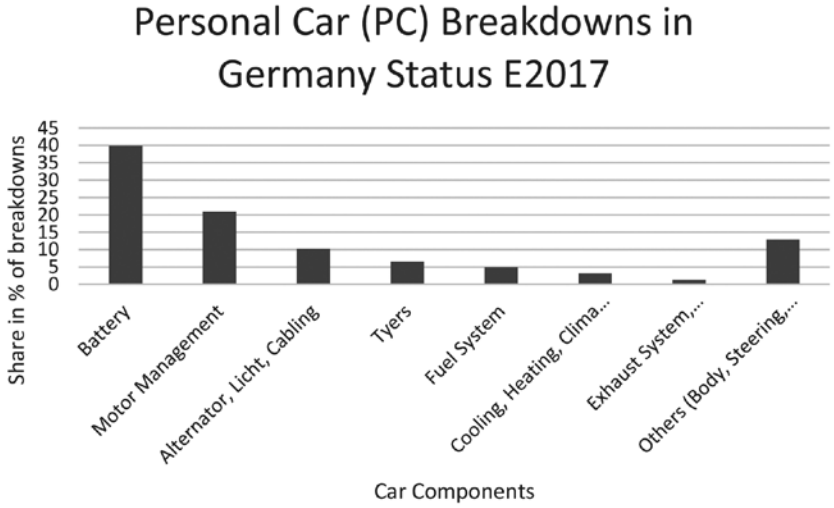


Figure 9: Distribution of defective passenger car components [9]

As shown in the figure above, the battery (conventional) accounts for around 40% of the main cause of these breakdowns [4]. If one compares these values with the ADAC vehicle statistics of 2012, electrics in general (battery with 31.7% and alternator and starter with 12.3%) accounted for 44% [4]. The increase of approximately 8.3% is certainly due to the increased demand on the batteries (e.g. start / stop systems, larger number of consumers) and the aging vehicle fleet. Another reason for these failures is "the increasing complexity and interconnectedness of vehicle-mounted electronic components and with them associated ever-increasing share of software" [4]. Unfortunately, it should be noted here that the battery currently has no remanufacturing options and therefore this market can only be served by new batteries. With a share of around 20%, engine and engine management come second in the breakdown statistics. These problems are primarily software bugs that can be fixed by updating or replacing the electronic components. Only in third place with approx. 10.2% are the starters, generators incl. lighting and wiring in the breakdown statistics. It is only worthwhile for starters and generators to use a remanufactured product due to the high quality of the components [2].

5. WHAT INFLUENCE DOES THE DEVELOPMENT OF THE LIFECYCLE OF PASSENGER CARS AND WHICH CHANGES IN THE MAIN FAILURE COMPONENTS HAVE ON THE NEED FOR REMANUFACTURING?

The analysis of the development of the service lifecycle in Germany and in the USA of passenger cars shows the following results:

- Remanufacturing is only required if the lifetime of the used components is less than the expected useful life of the vehicles, machines and systems. The responsibility for the failures during the expected useful life lies essentially with the producer and, to a lesser extent, the user. The failures can be differentiated as follows:
  - Failures caused by users (accidents or incorrect use)
  - Failures caused by the producer due to non-robust design or unstable and uncapable processes in the value chain.
- The passenger cars on Germany's roads are getting older. Since the beginning of the millennium, the average age of the passenger car fleet in Germany has increased almost steadily. In 2000, a car in existence was still around seven years old on average. By the beginning of 2015, this number had increased to nine years, setting a new record. Only at the beginning of 2010 – i.e. directly after the scrapping premium of 2009, when around 2 million older cars were scrapped and replaced by new or only year or several years old cars – did the average age of the vehicle fleet drop slightly [9].
- The technological advances that are gradually leading to longer component durability due to more robust design and stable and capable manufacturing processes, reduces the need for remanufactured components.
- Increased requirements on better technology according to IATF 16949 and ISO 26262 for further improvement of components lead to the reduction in remanufacturing demand:
  - An average car today consists of up to 10,000 components. Of course, depending on the size and equipment of the vehicle, this number can be more or less.
  - In the worst case scenario, if all 10,000 components had an ASIL A-rating and therefore a failure probability of 10^{-6} failures / hour, the overall system of passenger cars would have a probability of failure of (10,000 components × 10^{-6} failures / hour) = 10^{-2} failures / hour. Since a car is operated for approximately 4,000 hours over the lifetime, this would mean a failure of 40 components over the life of a car.
  - In the best case, if all 10,000 components had an ASIL D-rating and thus a failure probability of 10^{-9} failures / hour, the overall system of passenger cars would have a

failure probability of (10,000 components × 10^{-9} failures / hour) = 10^{-5} failures / hour. Since a car is operated for approximately 4,000 hours over its lifetime, this would mean a failure of 0.40 components over the life of a car.

- The longevity of cars causes the structures in the vehicle fleet change only slowly. Therefore, it will take many years for cars with alternative drive technologies (electric, hybrid, hydrogen) to play a significant role in the German passenger car fleet. The future vision of a largely climate-neutral or locally emission-free German road traffic until 2050 is hardly achievable from today's perspective.
- The increased warranty periods (up to 7 years) show the quality enhancement of the components and cause the components to be replaced with new parts by OEMs as a guarantee or goodwill in the scheduled maintenance. This also reduces the need for remanufacturing of components.
- Alternative drive technologies lead to the exchange and thus the rejuvenation of cars. See the scrapping premium in 2008/2009 and its impact on the vehicle fleet in Germany [13]. Remanufacturing can no longer be economically viable for older cars. On the other hand, shorter warranty periods for electric vehicles could offer additional potential for remanufacturing [3].

6. RECOMMENDATIONS

The result of this article and, thus, management recommendations are:

- The reliability analysis of the lifetime of vehicles must be fully implemented and also made available transparent analogously to the ADAC breakdown statistics.
- Improvement of the component quality of vehicles, machinery and equipment eliminates the need for remanufactured products. In order for the companies (OEM) to act in an ecologically sensible way, they should be worn as a guarantee if they do not reach the required service lifecycle or they must cover 80% of the required components by remanufacturing solutions, whereby the components' price is max. 80% of the new parts' price over a period of up to 15 years after the end of the OEM production must be made available.
- Both requirements can only be met by legislation at national, European or international level. With the existing laws, the companies (OEM) far too early (1 to 2 years under the warranty / guarantee) are loosen from the responsibility.
- Electromobility and autonomous driving make the cars more complex and thus increase the risk of many early outages (children's diseases) and thus increase the need for remanufacturing solutions.
- Due to the higher requirements of IATF 16946, ISO 26262 and the imminent change in electromobility and autonomous driving, the need for remanufacturing can be further at risk in the future. However, these influences can only be expected in the next 5-8 years.

7. CONCLUSION

Whether these theoretical assumptions and management recommendations can actually be implemented depends on many factors:

- The informative value of the data available for this article is essentially attributable to the breakdown statistics from Germany and the USA. There are no exhaustive reliability data from OEM or other institutions, such as the reliability of the vehicles over the

lifetime. Therefore, the required management recommendations have an uncertainty that needs to be considered when considering the topic further.

- How will consumer behavior change? So the observer must ask how important to him is the reliability of passenger cars. Looking at the development of recent years, the quality requirements of the customers have increased and the vehicle manufacturers have responded to them and permanently improved the vehicle quality.
- If the laws and regulations are tightened at the national, European or international level, analogously to the requirements for the recycling of plastics, end-of-life vehicles, etc., this also applies to the reliability and warranty of vehicles and these requirements for reliability are implemented by the vehicle manufacturers.
- How the vehicles are designed and built by the changes and the increased demands of electromobility and autonomous driving that will have an influence on the reliability and the sophisticated vehicles can actually fully implement the higher requirements by IATF 16946, ISO 26262.

REFERENCES

[1] ADAC-Pannenstatistik. [Online] Available from: https://www.adac.de/rund-ums-fahrzeug/unfall/adac-pannenstatistik-2018/. [Accessed 15th April 2018].
[2] Golinska, P. (2014) *Environmental Issues in Automotive Industry.* Berlin Heidelberg: Springer Verlag.
[3] Heike, G. S. (2018) *Herausforderungen für den Automobilhandel durch die Elektromobilität.* Wiesbaden: Springer Gabler Verlag.
[4] Hochgräf, M. (2015) *Untersuchungen zur Lebensdauer und Zuverlässigkeit von Elektrofahrzeugen.* Kassel: Kassel University Press.
[5] ISO-Working Group (2011) *ISO 26262.* International Organization for Standardization.
[6] J.D. Power and Associates U.S. (2010) *Initial Quality Study SM (IQS).* [Online] Available from: http://www.jdpower.com/. [Accessed 18th September 2017].
[7] J.D. Power and Associates U.S. (2014) *Initial Quality Study SM (IQS).* [Online] Available from: http://www.jdpower.com/. [Accessed 18th September 2017].
[8] Jakoby, W. (2018) *Qualitätsmanagement-Ein praxisnahes Lehrbuch für die Planung und Stuerung von Qualitätsprozessen.* Trier: Hochschule Trier.
[9] Kraftfahrt-Bundesamt (KBA) (2018) [Online] Available from: https://www.kba.de. [Accessed 12th September 2018].
[10] Leavy, P. (2017) *Quantitative, Qualitative, Mixed Methods, Arts-Based and Community-Based Participatory Research Approaches.* New York: The Guilford Press A Division of Guilford Publications, Inc.
[11] Robert Bosch GmbH. (2017) *Bosch Inside Docupedia*.
[12] Robert Bosch GmbH. (2018) *Bosch Inside Docupedia.*
[13] Schlosser, R. (2012) *Auswirkungen der „Abwrackprämie" aus die Umsatzzahlen der Automobilindustrie.* Gießen: Justus-Liebig-Universität.
[14] SMQE Quality Management (2018) [Online] Available from: http://www.smqe.de/print.php?page=weibull. [Accessed 25th July 2018].
[15] Statista.com. (2018) [Online] Available from: https://de.statista.com/. [Accessed 30th November 2018].
[16] Wetzel, D. H. (2016) *Qualitative und quantitative Forschungsmethoden.* Oldenburg: Carl von Ossietzks Universität Oldenburg.

LEASING CONTRACT – SIMILARITIES AND DIFFERENCES WITH THE CONTRACT OF RENT

Majlinda Belegu[1]
Bashkim Rrahmani[2]

DOI: https://doi.org/10.31410/EMAN.2019.735

Abstract: *Social relations regulated with the legal norms are called judicial relations. There are cases when parties are in a situation to enter into the determined relations in order to achieve their goals. Goals are always achieved with the fulfillement of duties and with the realization of their rights. In the modern world, in addition to the contract of sales, contract of rent, credit contract, etc., there exist other contracts which can make buyer a legal possessor, after the fulfillment of the contractual obligations. Contracts are the more often forms of the legal relationships between contract parties. Before the contracts are signed several conditions shall be fulfilled. For their fulfillment, parties shall be careful, otherwise they may come to a situation of nonfulfillment and even to the annulment of the contracts.*

Paper deals with the norms which regulate conditions for signing a contract, including general and specific conditions, characteristics of the contract, the rights and the duties of the parties and the ways of extinction of the contract of leasing. Authors for the needs of this paper have used the method of legal analysis, method of comparison, method of description, and the method of systemic analysis. Thus through these methods the differences and similarities of this contract with the contract of rent will be explained and analysed along with specific cases from the practice. At the end, the ways of extinction will be explained and analised as the conclusion with the agreement, by missing deadliness; with the fulfillment; with the annulment; and with the extinction of the business society when it is in the role of lessor.

Keywords: *law, contract, leasing, norm, agreement*

1. INTRODUCTION

The life dynamics have increased the ways of creating the legal relationships. The growth of labour market and the every day needs on trade, sophisticated the ways of buying in one side and also selling in the other side, as well. The contract of sale, is among the most frequent contratcts by name, which is used worldwide. It through the agreement of parties makes the transfer of the property from the seller to buyer. The contract of rent is the most used in the justice in the every day life. It is used more and more, whereas after it ends, the item which was under the rent is turned back to the owner and in this case lessee is not the legal possessor of the item. Paper analyses the contract of leasing as one of the most frequent and the newest one at the recent times. This contract belongs relatively to the new ages. The leasing contract basically derives from the rent contract whereas its name indeed means rent (leasing). Even though its name is rent, it is not the contract of rent and at the end the lessee becomes the legal possessor of the item. Property moves from the lessor to the lessee after a determined period of time as determined by the contract. The paper contains the analysis of norms and at the same time the theories of various authors regarding the leasing is analysed. The parts of the conditions for concluding the contract are taken from the disposals of the law on obligations which basically regulate the general part of obligations. Paper also analyses the subjects of this contract, the rights and obligations of parties, the characteristics of the contract, etc. At the end, the ways of extinction of the leasing contract are presented.

[1] AAB College, Pristina
[2] AAB College, Pristina

2. NOTION OF THE CONTRACT

The contract of leasing is a new contract that has been frequently applied after the World War the Second. As a contract, it is very frequent and important, therefore in Kosovo it is regulated with the special law ---Law on Leasing.

Contract of leasing is one of the most modern contracts in justice. This contract is a complex of legal acts and based on the law on leasing it regulates leasing of movable and immovable properties. This law does not apply on the rent of land, rent of buildings, the rent of offices or apartments and it will not be applied on the leasing or for the rent of everlasting items, rent on money, documents, financial instruments, accountables, works of arts, intellectual property or other inviolable property.[3]

Contract is created after the Second World War and the country where it was more used was USA, whereas the word leasing derives from the English word *lease* that means rent or something that is given under the rent.

The leasing contract is not a simple one. It is composed of the contract of rent, contract of sale, contract in work, etc. The goal of the contract of leasing is creation of the possibilities and the rights to use a complex of means which the determiend subject cannot buy and whose period of amortization is not longer than the period of their sustainability in the leasing contract.[4]

3. CONDITIONS OF CONTRACT AGREEMENT

Contract agreement requires the offer and the negotiations which preceded the contract agreement. The contract agreement is called creation, connection or stipulation.[5] After agreement, the contract produces legal effects but first of all it should fulfil determined conditions. For the contract agreement the fulfillment of general and special conditions is needed. The general conditions or needed conditions for this contract are: working abilities of contract parties, the free will, the contract subjet and the contract basis. As the special conditions of this contract there are: contract form, contract agreement by item delivery and giving consent for contract agreement.[6]

Essential conditions are those that are absolutely necessary and required for concluding the determined contract[7], and the contract will be invalid if the lack of one of these conditions is faced. Special conditions are those which are faced in determined types of contracts. These conditions are foreseen by the permited legal norms or dispositive norms.[8]

Technical conditions are named conditions which are not either usual or essential but they are found in that contract because such a thing was foreseen by parties.[9]

---

3 Kosovo Leasing Law, article 1, paragrapf 2, Kosovo Official Gazzette , Ligji nr.03/L-103
4 Armand Krasniqi, E Drejta Kontraktore Biznesore, Csara, Pejë, 2015
5 Nerxhivane Dauti, Kontratat, Universiteti i Prishtinës, Prishtinë, 2012, pg. 33.
6 Ibid, pg.33.
7 Marjana Tutulani - Semini, E Drejta e Detyrimeve, pjesa e përgjithshme, Skanderbag, Tiranë, 2006, pg.47.
8 Ibid, pg. 49.
9 Ibid, pg.49.

4. WORKING ABILITIES OF THE CONTRACT PARTIES

Working abilities of parties mean their ability to act. According to the law this is gained after the years of 18. Working ability of contract parties in some cases is gained before the age of 18, respectively in the age of 16 by the institute of emancipation. If a person concludes a contract of leasing before this age it will be considered like it was not agreed at all and the contract will be declared nule. All effects produced by the contract (in this case) will be considered nule.

5. CONSENT OF WILL

This is the second condition of contract agreement. The free will or consent shall be mutual. Both contract parties shall be of the same consent on concluding the contract. The inner will shall be the same with the declared external will. Parties with their will enter into the contract and the agreed will makes it as contract is agreed. Apart that contract is agreed it is considered that parties agreed on essential elements of the contract.

6. OBJECT OF CONTRACT

Subject of the legal relationship is that upon what the rights and the duties of parties are interlinked which at the end of the day contain the goal for agreeing of the contract.[10] The subject of the contract is the general condition and it is that on what parties have agreed upon or on what the contract was agreed.[11]

Object is one for what the contract is agreed. Leasing is an atypical contract which contains the specific construct of financing and placement of investive wealth which are selected by the user of leasing.[12] Object of the contract may be immovable and movable items, consumable and unconsumable items and that, that item shall be an item in the judicial circaulation. Object of the contract may be also considerable amount of money, acts and non-acts, products of the intellectual activities and personal goods of nonwealth character.

Item should be determined or one which could be determined; it has to be legal, it has to be valuable, it has to be possible for realization.[13]

The other condition for contract agreement is also the basis of the contract. Basis of the contract is legal goal that pushed the parties to take obligations and this has determined the nature of the judicial work of this contract.

7. SUBJECTS

Subjects in the judicial obligation relations are called parties of the contract. All contracts are agreed between parties who at least have to be two. As such they may be physical or judicial persons. Contract parties of the leasing are: lessor and lessee.

10 Mariana Tutlani-Semini, E Drejta e Detyrimeve dhe Kontraktore, pjesa e vecantë, Skanderbeg, Tiranë, 2006, pg. 25.

11 Nerxhivane Dauti, Kontratat, Univeriteti i Prishtina, Prishtina, 2012, pg.36

12 Vilim Gorenc, Bazat e së Drejtës tregtare statusore dhe kontraktore, Viktori, Prishtina, 2010, pg.219.

13 Nerxhivane Dauti, Kontratat, Univeriteti i Prishtina, Prishtina, 2012, pg.26.

Lessee means one physical or judicial person who gains the right to possession and to use the assets of the leasing object based on the contract of leasing.[14] Whereas, the other party, lessor is a licenced judicial person in a specific way from the Kosovo Central Bank in order to exercise mutually the leasing financial transactions or the operative leasing and who gives the right to possession of the assets of the leasing object based on the contract.[15]

Apart the lessor and lessee as the other parties could be also the supplier. Lessor and the supplier could be the same person.[16]

8. CHARACTERISTICS OF THE LEASING CONTRACT

Starting from the point that this contract is regulated with the special law since 2009, this is a contract known as the contract by the name. This contract has to be made in the written form and in accordance with the procedures determined by the law.[17] The contract of leasing is principal contract since it may exist independently of other obligations. It is a mutual contract where parties appear to be as holders of the rights and the duties. Leasing contract is a contract with the reward. Reward consists on delivering the rate of leasing. This contract is consensual because it is considered as agreed at the moment when the will of both parties is in accordance.

Leasing contract consists of a big number of contracts but its name itself associates to the contract of rent. It has similarities with the contract of rent but nonetheless it differs. Contract of rent is a contract by which one party is obliged to give to the other party a determined item so it could use temporarily against a determined reward.[18] Whereas the leasing contract is agreement between two or more contracting parties in which case, one party is obliged to give to the other party a determined item but the item could not be of temporary use, it has to be everlasting against a reward. After payment of all installments, lessee is transformed into a legal possessor of the item which was used and for what he has paid price during a determined period of time until the last installment. This shows that the leasing contract has some characteristics of the sale contract. By the sale contract the transfer of movable or immovable property is made possible, or even the transfer of a right is made no matter if it is a right from the credit or real against a reward.[19]

9. TYPES OF LEASING

There are various types of leasing which are divided into several groups: according to specifics of leasing – objects; according to the duration of the contract of leasing; according to the position on which is found the lessor.[20] According to the specifics of the object, it could be noticed: leasing of the consumable goods, leasing of imovables and movables and the leasing of used goods. According to the duration there are: short term leasing and long term leasing. According

14 Law on Leasing, Kosovo Official Gazzette, Prishtina, 2009, art. 2.
15 Ibid, art. 2.
16 Law on Leasing, Kosovo Official gazette, Prishtina, 2009, art. 3, paragrapf 2.
17 Ibid, art. 4.
18 Kodi Civil i Republikës së Shqipërisë, Fletorja Zyratre e Republikës së Shqipërisë, Tiranë, 1994, art. 801.
19 Ardian Nuni, Ilir Mustafaj & Asim Vokshi, E Drejta e Detyrimeve II, Tiranë, 2008, pg.9.
20 Mazllum Baraliu, E Drejta Biznesore, Universiteti i Prishtinës, Prishtinë, 2010, pg.492.

to the position of the lessor there are: leasing through the leasing associations, concer leasing, sale and back leasing, production leasing and financial production leasing.[21]

Law also allows the leasing as a domestic and the international leasing. Contract is considered to be domestic if it is agreed between inhabitants in Kosovo. Contract is international when either lessor or lessee are not inhabitants in Kosovo.

10. CONTENT OF THE LEASING CONTRACT

Together with the contract of rent, the leasing contract is the most frequent contract on gaining the ownership therefore its form is determined by the law. Initially it was a legal-obligatory institute and the contact of legal order in USA, however it has been accepted and applied consequently by the other legislations.[22] According to the Law on Leasing, article 5, the leasing contract is a contract which within itself has the following elements: identity and the addresses of the contract parties, description of the assets of the object of leasing, total amount of the all installments paid by the lessee to the lessor, duration, number of payments, total leasing payments, deadliness of payments, etc.

11. RIGHTS AND THE OBLIGATIONS OF CONTRACT PARTIES

The rights and the obligations of the lessor – with the leasing contract obligations of lessor and the lessee are not refundable and independent of the time when parties enter into the contract.[23] According to the law lessor keeps the righ on the property over the assets of the leasing object during the all time. Lessor has no responsibilities for any damage in which case the lessee should pay a reasonable attentions to avoid any damage or any other encroachment in the property. Delivery of the object of the leasing contract, guarantee for quite possession of the leasing object are the main obligations for him. Leasor can time after time ask for information regarding any lose, pretending, damage or other material acts which may appear while it is being used and possessing of the assets of the leasing object by the side of lessee. Lessee should give such an information in a precise way and at the needed time.[24] Lessor has also the right to inspect the asset of the leasing object at every moment during the leasing duration.

The rights and the obligations of the lessee – Lessee has the right to receive the leasing object, to refuse it and he is obliged to maintain the leasing object. Lessee has no right to put the leasing object under the hostage or mortgage or to burden it with any other obligations --- the leasing object.[25] The lessee should also turn back the object of leasing if the obligation is not fullfiled according to the contract. The object should also be turned back in the similar conditions as it was delivered by the lessor.

---

21 Ibid pg. 493-494.

22 Riza Smaka, E Drejta Biznesore, Kolegji Iliria, Prishtinë, 2010, pg. 389.

23 Law on Leasing, Kosovo Official Gazzette, Prshtina, 2009, art. 6.

24 Ibidem, art. 14.

25 Law on Leasing, Kosovo Official Gazzette, 2009, art. 18.

12. DELAYS OF PARTIES IN THE LEASING CONTRACT

In the case of delay from the lessee, lessor can gain unpaid accumulated installments and that with the interest and compensation of damages. Delay on paying the leasing, from the lessee are considered as the material loses.

13. REPOSSESSION OF THE LEASING OBJECT

Repossession could be realized in these forms: with the court decision by lessor if this is being done without damaging the public order and by the administrative act. Within three days term after the repossession of the leasing object, in case of the dealys by the lessee, lessor can nominate a selected person by the court to take on the possession the object of leasing.

14. EXINCTION OF THE LEASING CONTRACT

There are various forms of leasing contract extinction. Here we talk about executing the payment or the termination of the contract do to the fact that it is not executed.[26] Bankruptcy, liquidation are also other forms of the leasing contract extinction. Leasing contract is extinguished also by the court decision of annulment. If it comes to the stage of annulment of the contract all acts that are undertaken after the contract agreement are considered like they were not undertaken.

15. CONCLUSION

Leasing contract is a contract of new ages. It has started to be more frequent after the Second World War. Dinamisation of the trade development has made that this contract is being more and more used. According to the definition we see that this contract is agreed between two or more contract parties. In the side of the lessor, it always appears the judicial person. In this case, it has always to be registered and licenced to deliver leasing by the Central Bank. In the side of the lessee, it could appear physic or judicial persons. Apart from this, this contract is a contract by name and this is seen that it is regulated by the special law. This is commutative contract, formal and written, contract with the reward which should be verified by the competent organs.

Conditions for this contract are divided into the general and specific ones. This contract belongs to the contracts where the leasing object should be delivered in the moment when it was agreed by lessor and the lessee.

Being that not all things could be bought in cash, buying was made with the leasing. Leasing is principal contract but within it there are present also a number of other contracts as mentioned with this paper.

This contract has similarities with the contract of sale and with the contract of rent. With the contract of sale the similarity exists from the fact that with the last installment of leasing we could come to the property as it is the case with the contract of sale. Similarity with the rent exists and it is bigger, but the difference stays on that that the object of rent is turned back to the owner whereas the object of leasing remains to the lessee. According to this, we see that this contract has elements of the rent contract and the contract of sale.

[26] Georges Vermelle, E Drejta Civile, Kontratat, pjesa e posacme, Papirus, 2006, pg.175.

Shortcoming of this contract is of that, that impossibility to pay the installments is the violation of the contract which makes lessee impossible to be the owner of the item under the leasing. Then all rights and the obligations of lessee and the lessor are almost the same with those from the contract of sale and the contract of rent. Even lessor has the right of control over the object of leasing at any time he thinks it is needed. It should be needed and optimal deadline about informing the lessee about the intention of the control over the leasing object.

Lessee also should compensate all damages in the case of turning back the leasing object. If it comes to the damage on the object of leasing by all means, the lessee should turn back the object in the conditions it was taken on the leasing. For some items, it is a little bit difficult because they are consumable by being used. Leasing contract is extinctioned in various ways. In most cases this is done by fulfilling the conditions. However, contract of leasing could be extinctioned similarly to the contract of sale and the contract of rent by: nonfulfillment, with the destruction of the item, by bankruptcy, by liquidaton and with the annulment with the court decision, what shows that principal conditions of the contracts were not fullfiled.

REFERENCES

[1] Baraliu, Mazllum. E Drejta Biznesore, Universiteti i Prishtinës, Prishtinë, 2010.
[2] Dauti, Nerxhivane. Kontratat, Universiteti i Prishtinës, Prishtinë, 2012.
[3] Kodi Civil i Republikës së Shqipërisë, Fletorja Zyratre e Republikës së Shqipërisë, Tiranë, 1994.
[4] Krasniqi, Armand. E Drejta Kontraktore Bizneore, Csara, Pejë, 2015.
[5] Kosovo Law on Leasing, Kosovo Official Gazzette, Law nr.03/L-103, 2009.
[6] Nuni, Ardian, Mustafaj Ilir & Vokshi, Asim. E Drejta e Detyrimeve II, Tiranë, 2008.
[7] Smaka, Riza. E Drejta Biznesore, Kolegji Iliria, Prishtinë.
[8] Tutulani-Semini, Mariana. E Drejta e Detyrimeve dhe Kontraktore, pjesa e vecantë, Skanderbeg, Tiranë, 2006.
[9] Vermelle, Georges. E Drejta Civile, Kontratat, pjesa e posacme, Papirus, 2006.
[10] Vilim Gorenc, Bazat e së Drejtës Tregtare Statusore dhe Kontraktore, Viktori, Prishtinë, 2010.

THE HUMAN - ROBOT COLLABORATION STAND IN A UNIVERSITY LAB

Romeo Ionescu[1]

DOI: https://doi.org/10.31410/EMAN.2019.743

Abstract: *This paper is the result of a study conducted in the faculty's robotics laboratory. The study had a principal objective: to develop a working station with the help of which the possibility of human-robot collaboration in industrial applications would be tested; other indicators were also tracked, such as labor productivity.*

In the last couple of years, a new concept has been introduced, namely industrial robots working alongside factory workers. This way the tasks are shared between the humans and the robots. The robots even begin to look more and more human over the years, the so called cobots. The authors have as an example the collaborative robots produced in the last couple of years such as the robot produced by the Danish company Universal, the LBR IIWA robot produced by the company Kuka Robotics, etc. For the authors it is obvious the fact that industrial robots producers will keep developing more and more in the future in order to increase companies' performance, especially because many industrially developed countries have reported a decrease in the workforce in the last couple of years. That is why we proposed a working station which will be used in the university's lab, but which will also be given as an example to regional companies representatives. The work had several steps. The oldest but the dearest robot in the laboratory has been used, namely SCORBOT, predominantly meant for didactical laboratories, because it is a versatile, reliable robot, which is suitable for teaching and training students in robotics. The working stand has as components a robot, two deposits containing tools such as scredrivers, callipers or pliers, two deposits for assembly pieces and one deposit for finalized pieces. The tools' presence is identified by the robot due to infrared rays emitted by these tool due to the fact that every tool holder has been equipped with presence sensors. The robot offers the worker tools, pieces, measurement devices in the order of the technological assembly process. Measurements for determining the time it takes the worker to assembly the pieces without the robot have been performed, then the same measurements were taken for when the robot was involved. A great improvement in productivity has been noticed. Another benefit of involving the robot is decreasing the level of tiredness for the worker if the time unit is chosen favorably. Needless to say, the robot's implication means a higher productivity level which depends very much on the robot's technical capabilities as well as the worker's physical ones. However the real challenge and the essence of the robot- human collaboration is the avoidance of accidents. The workplace must be built in a way that would protect the human from the robot's movements. The authors believe much will change in the industry due to the human- robot collaboration in the future.

Keywords: *collaborative robot, industrial robot, human-robot collaboration*

1. INTRODUCTION

In recent years, a new concept has evolved for production engineers, which is robots that collaborate with the operator. The concept is related to the industrial robots introduction to the manufacturing lines or to the flexible manufacturing cells alongside the workers. That way, the tasks are shared between the worker and the robot. More recently, the robots have even

[1] Faculty of Mechanical Engineering, Mecatronics and Management, University „Stefan cel Mare", Suceava, str. Universitatii 13, Romania, ROBFLEX - Laboratory for research on advanced processing technologies with robots and flexible systems.

started to take the appearance of a human even more, hence why a new term for this kind of robot was invented: the collaborative robot. It looks like things will change drastically in the production industry due to the human-robot collaboration.

The present paper had several steps: documentation, constructive design, making the components, assembling the pieces, designing the technological process, organizing the workplace as well as programming the robot.

It is well known the fact that one of the objectives of robotics science is to improve the robots' use in order to increase their productivity as well as the processes they are involved in. Needless to say, this holds for a big variety of industries, [1].

In the faculty's robotics lab there are several types of robots, from didactic ones to those meant for industrial purposes. There have been several inquiries coming from companies in the region regarding using these robots, in order to develop ways in which the worker could collaborate efficiently and safely with robots.

2. THE HUMAN - ROBOT COLLABORATION IS NO LONGER A NOVELTY FOR THE ENTERPRISE ENGINEERS

So far, in the majority of enterprise processes, the human has been the main "actor". For several years, the production has been based on work solely performed by people. Many times this work has meant intense physical effort, exposure to industrial emissions (noise, dust, toxic substances, unusual temperatures etc.) Machines have eventually replaced manual work. Automation exists in pretty much all manufacturing processes. However, in the last part of the 20th century, automation reached a new level: robotics. Industrial robots took over some of the activities performed by workers, especially the dangerous, hard and repetitive ones. The manufacturing processes have become complex, but the unemployment rate is also something that worries our society. Therefore, in the last couple of years the involvement of robots has taken a new perspective, that of collaboration with humans. Figure 1 presents the situation where a worker from the mechanical industry works alongside an industrial robot produced by the company Universal. Universal Robots is a Danish company, founded in 2005, which focuses on producing user-friendly robots, or to be more precise robots that adapt easily in collaboration with humans [2]-[3].

When we built the work station, we had to make it clear from the beginning that the robot is not meant to replace the human, it is in fact only meant to work alongside him/her in order to improve the worker's abilities and to free him/her from difficult tasks, such as lifting heavy objects or performing operations that require high precision. Up until recently, robots and people were working in different areas of the manufacturing process. In completely automated areas, the human's presence was either no longer needed or the worker was just a supervisor. In the industry's future, it is assumed there won't be a separation between automated and manual workstations. Humans and robots will work together without affecting the safety of those involved. This collaboration is clearly revolutionizing the industrial production and has clear benefits such as:

- increase in productivity;
- maximum flexibility in production;
- improved workers' posture by eliminating processes where workers had to work in less ergonomical positions and the reduction in accidents risks.

Our research has highlighted the fact that collaborative robots are produced under different forms and sizes. Some of them have a human like appearance, others have been built based on the industrial robots' current image, others are a combination of the two.

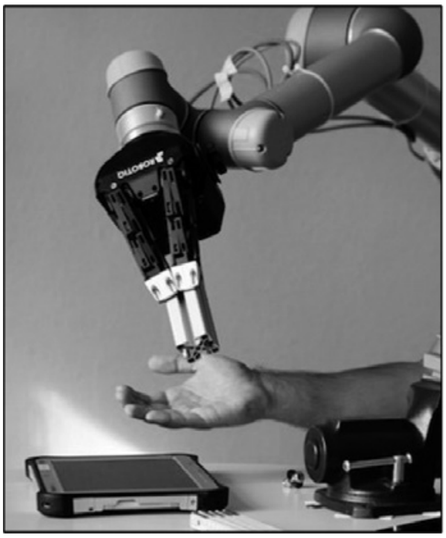
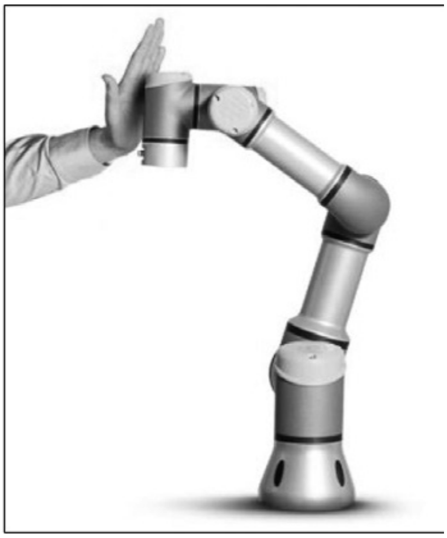



Figure 1: Human-robot collaboration, Universal Robots, collaborative robot, [2]-[3].

The Kuka Robotics company from Germany has recently developed the collaborative robot LBR IIWA (industrial intelligent work assistant). It is built differently compared to other traditional Kuka robots. The structure which contains sensors in each engine makes the human-robot collaboration possible in the most delicate and interesting manufacturing processes. In this way, LBR IIWA paved the way for a new era in the human-robot relationship, making it more direct. The robot can be considered as the worker's 3rd hand and it can work directly with people, without the need of a protection mechanism, since the robot's speed can be reduced based on the distance between the human and the robot, so that the robot is always staying still whenever the worker is approaching it, figure 2, [4].

Figure 2:Collaborative robot **LBR iiwa** Kuka. [4]. Figure 3: the „Baxter" robot, [5].

In 2012, Rethink Robotics innovated the robotics world by designing the collaborative robots with a human like appearance. The company built the most well known collaborative robot, „Baxter". Baxter is an industrial robot with a friendly face and human like gestures, equipped with a big variety of sensors. It moves and it does different things safely and carefully around the workers. It has sensors on its head and on its body which allows it to sense people's presence. The head also has cameras with artificial views, which constitute the robot's eyes. The contact sensors are sensitive to any unpredicted touch. Industrial robots producers will keep developing this concept in the following years in order to increase companies' performance, much more so because the human workforce is decreasing in many industrially developed nations, [5].

3. THE HUMAN - ROBOT COLLABORATION STAND IN A UNIVERSITY LAB

In order to gain experience in this domain of industrial engineering, we tried several applications with the robots already existent in the lab. We were conscious of the fact that in the industry, the need for recent generation robots with geometry and parameters that would be in favour of human robot collaboration is very obvious. Our experience goes from simple to more complex. We believe that a stand would be useful in order to develop the idea that the operator can work with the robot and in order to encourage the engineers in that sense. The first stand used the robot Scorbot. The Scorbot robots, produced by RoboGroup TEK, formerly known as Eshed Robotec, are meant especially for didactic labs, since they are simple and pretty versatile, suitable for training and teaching students. The programme Scorbase controls the Scorbot robot in order to have the ability to execute precise movements, controlled by the remote. The Scorbot robots were built in various forms, their evolution in time being based both on the mechanical part development as well as the programming part.

Scorbot ER-III is a robot capable of similar applications to the ones industrial robots do. It has 5 degrees of freedom and it exists in the faculty's robotics lab, the same place where the work station is as well.

The assembly process of a group of pieces, using screws, has been analyzed. Both the pieces as well as the assembly process were specific to the manufacturing process of a company in the region. The worker was doing the assembling using screws from several pieces and specific tools and in the end he was doing the measurements (figure 4). The operation itself wasn't technologically complicated, but the work place was suitable for automation. We decided we wouldn't remove the worker from the manufacturing process, but to increase the productivity. The work pace had to be established by the robot, but periodic breaks were defined as well.

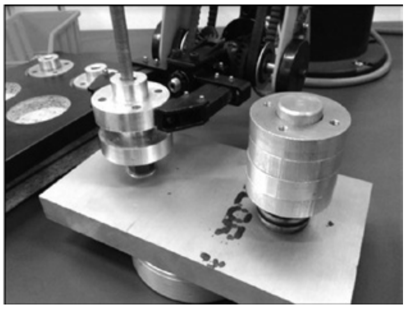


Figure 4: The operator assemblying pieces with screws using screwdrivers and makes specific measurements using measure and control instruments.
Figure 5: Deposit for some of the pieces that need to be put together

In this part of the paper a stand specific to assembly processes is presented. The idea was to develop a human - industrial robot collaboration in real time based on the assembly process previously mentioned. The application does not involve a collaborative robot.

Following the analysis of the steps needed to be taken, a deposit meant to host all tools, pieces and screws was put in place. In figure 6a and 6b, parts of this deposit can be seen, such as a primary deposit for tools (screwdrivers for different purposes), measure and control instruments, boxes for the tools used in the different stages of the technological process and a secondary deposit for tools. The robot will be in charge of dealing with the tools, transferring them from the deposits before and after they have been used by the worker.

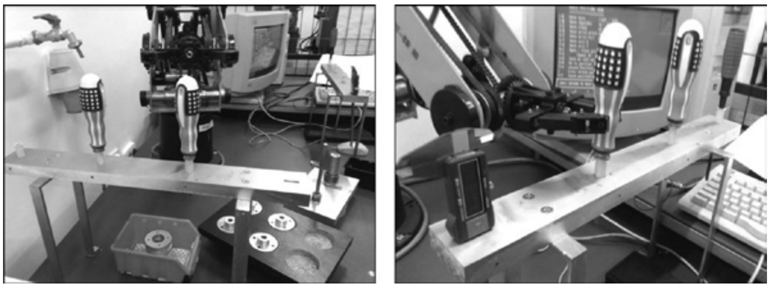


Figure 6. a: Deposit for pieces and measurements and control instruments;
b: The robot deals with the tools and the measurement and control instruments
(photo from the lab).

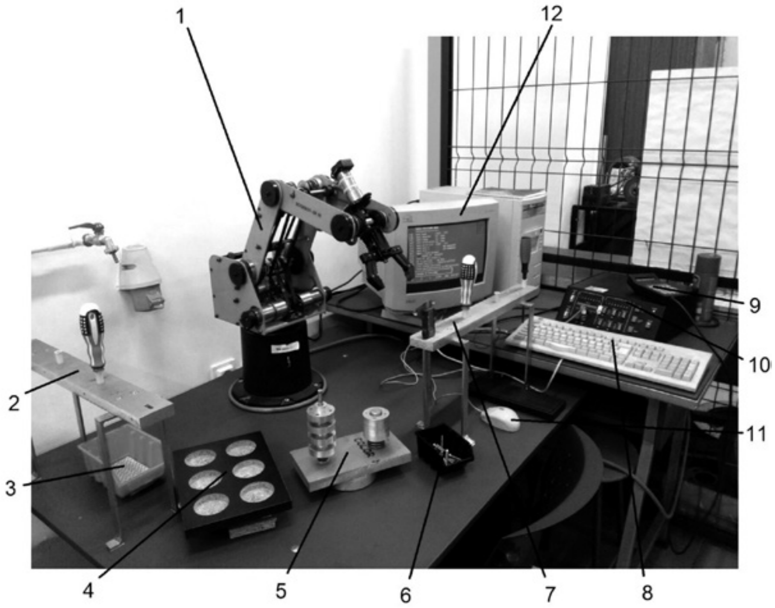


Figure 7: Working station with human robot collaboration. Photo taken in the robotics lab.

The deposits used for the work station have been equipped with presence sensors. That way, the presence of each tool and of the measurement instruments is controlled by these sensors.

A couple of the elements that appear in figure 7 are: the robot Scorbot ER III (1), the primary and secondary deposit for tools and measurement and control instruments (2 to 7), the robot's controller (10), tech pendant (9), display (12) control, its teach pendant, the monitor and the PC.

The tools and measurement and control instruments placed in the deposits by the worker after their utilization are transferred in the primary deposit by the robot. This transfer is done while the worker does the assembly using the screwdrivers.

Measurements for how long the assembly process takes have been made both for when the robot is participating and for when it is not. The conclusion is that without the robot's participation the worker's assembly time is around 7-8 pieces per hour. That is the equivalent of around 44-46 pieces per 8 hour shift. Unforeseen breaks have been noticed as well.

When the robot got involved, the productivity increased, since in this case around 12 pieces were made per hour, which meant about 86-90 pieces in an 8 hour shift. The productivity went up due to reducing useless breaks. In both situations however, the necessary breaks were taken

into consideration. In the first couple of days, the worker reported on the intense working pace. In reality, the working process was just much better controlled. Breaks of 5-8 minutes were allowed every working hour. Recommendations for periodic replacement of the workers that worked in this system were made in order to avoid the tasks' routine.

Noise level measurements have been performed in the lab. The noise level without the robot was at 60-70 db on average, sometimes being out of this range due to wrongful manipulation of the tools and pieces. The noise level when using the robot was around 75-80 db. This was measured with the help of a professional sonometer. In both cases, however, the noise level stays within the normal limits imposed by the work safety and security regulations.

CONCLUSION

In the next period, we intend to transfer the application to engage with a robot Kuka 6, a robot that is in the ROBFELX laboratory. We expect higher performance and greater confidence from the regional industry in human-robot collaboration.

In this article, a collaboration application between worker and robot and not a production application with real cobot is presented. This will be a preoccupation for our laboratory in the next years. After designing and creating this workstation, we tried to show that the assembling process of pieces can be done on adapted stations, equipped with specific elements and with the implication of industrial robots. It isn't always necessary to have the latest generation of robots, since they are still quite pricy and the return on investment isn't always a sure thing in the short run.

However, the real challenge and the essence of the human-robot collaboration is due to the protection mechanisms against collision which translates into the robot's capacity to work alongside the worker in a friendly way. It must be avoided at all costs that the robot cause any harm to the worker in the production process. It is noted that this type of human-robot collaborations have gained the interest of those who design manufacturing lines and lead the production process and they will become more and more popular in the industry in the next few years.

REFERENCES

[1] Ionescu, R., Semenciuc, D. (1996). *Roboti industriali, Principii de baza si aplicatii*, Ed. OID, Bucarest.

[2] **Bélanger-Barrette, M.,** ISA-International Society of Automation, *ISO/TS 15066 and collaborative robot safety*, https://www.isa.org/intech/20160803/.

[3] *Reynolds machinery unveils money-Saving cobot on showroom floor,* (2018), https://www.reynoldsmachinery.com/reynolds-machinery-unveils-money-saving-cobot-on-showroom-floor/.

[4] KUKA Robotics Hungary, (2016), *-O noua-generatie-de-echipamente-robotizate-robotul-usor-si-de-precizie-lbr-iiwa-deschide-noi-posibilitati-in-automatizarea-industriala*, Tehnică și Tehnologie, T&T Journal, 10.10.20016 https://www.ttonline.ro/revista/roboti/.

[5] Pullman Academic, (2018), *Baxter Research Robot - Your New Lab Partner* http://www.pullmanacademic.com.au/Products_Robotics_Baxter.html.

[6] Miclosina, A., s.a.(2009). *Roboti industriali si linii flexibile / Industrial Robots and Flexible Lines,* Editura Eftimie Murgu, Resita.

ISBN 978-86-80194-17-2